J P James

Philadelphia Novem 7: 1855

My dear Dr Gray

I send you a nut with its covering, and a branch with leaves and a cluster of fruit sliced for convenience of being sent by mail of a plant, which came to me from a correspondent in North Carolina. Some few weeks ago he sent me a nut with its covering a greenish fleshy envelope which being a novelty that I could not class I handed to Dr Zantzinger to shew to Major Leconte and others - none of whom could name it Major L. thought it might be the nut alluded to by Bartram as found in Florida - "a very oily nut from a shrub" Mr Durand said it was decidedly new and very interesting. I wrote at once for more of the fruit, leaves etc. etc. and now have received 2 nuts and the enclosed specimen. One of the fruit I suppose having grown in a green house - can you not try to grow the other which I send? I send what I have of the first nut received, that you may see the meat the thin shell &c so that you may plant the whole one.

The plant is a shrub about six feet in height collected in the hilly parts of North Carolina. The fruit has a ~~thin~~ solid flesh or meat, acrid to the taste thin shell with slight protuberances externally; the covering of the first, was soft green fleshy not fibrous which did not enclose the whole of the fruit, the point being visible, when I got it.

Mr Durand was as much at a loss to day when I took him the branch leaves etc. etc. as before for its name and wishes me to say that he considers it not only new genus but a new family - Do me the favor to examine it and report - If more parts are necessary to make it out, I can get the flowers next season - The fruit when brought to my correspondent by collectors of herbs

he saw
was new to him, hence he sent it to me
Can it be a West India fruit straged to the north?
If without doubt new please inform me or what
ever it be, that I may reply and may tell Mr De
-rand and others.
Mr D. received your letter about the Phlox to day when I was
there, and wished me to say so -
I regret I did not see you while last at Cambridge
I wished to have told you that I thought if you brought out a new
edition of your Manual it would be better to have
Mr Sullivant to revise the Anoplyles for it; I do not
think it proper that for me to add to what he pro-
fess to have contributed - it might not gratify him.
No doubt by this time he can add much to what
has been published in the first edition - I do think
I have many of which he is ignorant of as indige-
nous to U.S.! When I can get time I will try to
make out a catalogue of those not known as belonging to this
country: a difficulty with me is the want of the very
latest and best authority not having Bryologia Eu-
ropea by Bruch & Schimper, I am unwilling to publish
a list that is not in as advanced position as that
standard work - I wish I had the copy belonging
to Harvard - but that cannot be and I cannot ap
propriate funds to its purchase yet, sometime however
I may feel able. I do not think there is but one
other copy in this country and Mr Sullivant has that
I am satisfied he has one from the last published Mosses
by him - I have two if not more new mosses
from the white hills this summer -
I am unwilling to send to Wilson in England more
mosses which may prove new, as I would prefer that the
new ones should be published first in this country -
he is without doubt however the best Bryologist now.
Mrs James sends her love to Mrs Gray and joins me
kindest regards to both. Truly and respectfully Yours
Thos P. James

Philadelphia Jany 7. 1856

My dear Dr Gray

In reply I give you my business address — No 212 Market Street Philad^a —
I am so pressed with business matters that I could not devote much time to identify by comparison with Bocky Mosses at present, so that I do not care to have the Bridels sent on by themselves as you cannot send Bruch & Sch. I will have to let ~~my incognitas~~ those Mosses which are not on the "Enumeration" or described in your Manual proofs — I may however send some of them to Mr Sullivant for determination, I have not replied to his late letter as I have been awaiting the motions of the printer to the Acad^y of N.S. that I might send a copy of the "Enumeration" with the two Species — If I can possibly find the leisure to overhaul my collections and select doubtful or unknown species I will send Mr S. a budget

With regard to Bridels I do not think they would be of much service if I obtain Bruch & Sch: for myself, I have in contemplation ordering a copy thro our bookseller — It is so long before I could get it in this way, yet I will have to possess it

Kindest regards to Mrs G. & self Yours truly Tho. P. James

Philadelphia May, 31. 1856.

My dear Dr Gray

Mr Fendler left for Caracas some weeks ago – I paid him the fourteen dollars which you desired me to do, you can refund when I see you at Cambridge this summer. Mr F. received a letter which came to me from Rev Dr Carter before he left.

My principle object in writing now, is to ascertain the time when it will be necessary for me to return the Copy of Bryologia Europaea. I have made and am still making diligent use of it as I can only examine Mosses by daylight – I have but a short time in the earliest part of each day to devote to this object – so I can not get so much done as I could if I had nothing else to do. I am not nearly thro' my mucci I have determined many species by it, and now regret that I had it not before printing my "enumeration" as in that case I should have added many more to the list.

I do hope you will not be called upon for its speedy return and that I may retain it for a long time yet, it is being put now to a useful purpose whereas if left on the shelves of Gore Hall it would not. Dr Harris required all books to be returned at stated periods, but could you not by application to the head of the department obtain an extension of the time. I do really need such an authority but I do not think I can quite afford to purchase the work at the publishers price complete – a copy nearly complete was on hand at a second hand Book store in Germany below much the subscription price about a year ago, as it is not in recent catalogues I infer that copy has been sold there is a set of the first two volumes on sale but it would be better for me to have a more complete set and then subscribe for the fasciculi as they issue.

I was called upon by Mr Durand to name the Mosses brought by Dr Kane from the Arctic regions, about the time I received the Bry. Europ. which occupied much of the time that I would have had to compare my own plants, but I could not well refuse to do this it proved more tedious than I expected being entirely new to me, I could not have performed this without the Bry. Europ.

When I got out the "enumeration" I sent with it most of the species (examples of) to Mr Sullivant. he subsequently asked for them I omitted by reason of the paucity of my stock, but which I did send on later being unwilling to deprive myself of such plants, he has not returned them nor reported according to promise upon those of the "enumeration" – He was doubtless wholly occupied in getting his division of the Manual in readiness for the press, but as your new edition was to issue in February he could have answered by this time I have not seen a copy of it here – will it not be on sale in Philad.ᵃ

I would take it as a favor (if not too late) if you would lay aside for me that portion of a copy of your Manual that comprises the cryptogams that I may have it bound interleaved – to make additions and remarks on.

Mrs James sends her love and Ella a love & kiss to you yourself & Mrs Gray

Sincerely Yours

Thos. T. James

Philad. 400 So: 9th St. Phila
Jan. 3d. 1869

My dear Dr Gray

I proceed to occupy the space allotted however an interesting ~~it may be~~ I had recently a note for the Muhlan informing that the publication of Pursh Journal in the "Monthly" was apparently and there a call ~~had~~ been made by some editors to have with the journal a memoir and portrait of Pursh — Muhlan wished to give a good cut from a portrait if one could be had. I thought ~~Mr~~ you ~~may~~ could in your frequent gratifications fall in with an engraving or some counterfeit of Pursh (photographs were not in vogue in his time) possibly some English edition of Pursh Flora might have one. will you ~~kindly~~ can procure it —

I met Prof Whitney in the city last week in good health he deplored the loss of Mr Mann and said Mr Wright had returned and was hard at work and he expected a visit from Prof. Brewer today or so — I had a letter from Prof Porter at ~~New~~ "Yale" some 3 weeks ~~ago~~ since informing me that he suffered for a slight attack of bilious fever — I had previously a note from Prof Eaton who was in good health — Prof Porter is laboring hard to get up ~~entire~~ the Flora of Penna — he has had an appropriation voted to him to fit up his herbarium in the Junks Hall of the College —

W. S. Sullivant is working at the Mosses again & will bring out in time another Vol. of Icones and what interesting one most precious to figure two new genera of Algiotricia that I detected in Danville Pa I also formed a new sp. of Campylopus there — Mr Sequin is just now at work on his Holy report — Durand is fussing about the city. Mr Canby is not idle. Mr Rothrock has all communication with me for some time Dr Carson having recently lost his Consort and is engaged in ~~botany~~ (medical) does not think much in botany

with kind regards to Mrs G.
I bid you farewell

I have since seen Dr Carson and he desires you, inasmuch as you are in the East to investigate the Cassia get Sennas and determine the Species of Commerce

Jno. A. Gray
June 2, 1869

Cambridge Mass Dec. 6. 1869

Prof. Trego —

Dear Sir

As a member of the Com. of publication I send a paper which I ask you to read and present it to the Com. Philos. Soc. at its next meeting. To send the memoir by mail would be more expensive & risky — I therefore will ~~send~~ forward it by a careful private hand or bring it myself on my next visit.

I submitted the paper to the inspection of Wm Boott Esq of Boston, the brother of Dr Boott who published in conjunction with Hooker a most elaborate work on the Carices — Wm Boott has made this tribe of plants a specialty for years — he examined the memoir very carefully and came to a decision that four of the drawings were not new and that two of them were duplicates of each other in a different stage of development and that the fifth might possibly be new, as comparison with the plants would determine.

I wrote to Dr Hayden for the plants or to Mr Seeley for the plants not received from me where they were, but have ~~not~~ received anything —

At my request Mr Boott sent the paper to Stephen F. Olney of Providence R.I. who, to my knowledge has made carcology his study for many years, and he confirms all that Mr B. has stated, and probably goes a little farther. Both decidedly repudiate the paper and would deprecate its publication, and they are of opinion that a publication would damage the reputation of the Society.

These gentlemen remark of the late Dr Olney that in the latter years of his life he committed egregious blunders and had become of doubtful

authority, with which opinion my neighbour
Dr Asa Gray coincides

J. Hall Pratt
Feb. 1869

To the American Philosophical Society

Gentlemen

The Memoir presented by Dr. F. V. Hayden, on the Carices collected by him during an Exploration of the Yellow Stone & Missouri and described by the late Dr C. Dewey, and ordered to be published in the Transactions by the Society, I observed was made in the year 1858, And as chairman of the Committee of publication, I deemed it incumbent on me to take measures to ascertain whether the species enumerated were unexceptionable, I therefore submitted the Memoir with the five drawings of new species which accompanied it, to the critical inspection of two eminent Caricologists. The results of their examination proved that four of the drawings are of species not new and the fifth not certainly so. The long Catalogue of the other species presents many names which have become void; it also embraces the names of foreign species not heretofore detected in this country and therefore of doubtful identity. An inspection of the plants themselves can alone determine the species, but even this would not be available in this case

To publish a memoir so defective would be detrimental to the advancement of science and would increase the already too plethoric synonomy. And further would not be creditable to the Society.

No censure should attach to Dr Hayden in this matter, he had I understand reported it with other documents at the time the Exploration was made to the proper department for publication

bed – so dilatory was it, that he hoped with good intentions to benefit science by offering it to this society for publication, not reflecting that cuneiology had made rapid strides in the mean time.

I therefore recommend that the proper course be taken for a withdrawal of the Memoir

Very respectfully Yours

Thos. P. James
Chairman Com. Pub.

To the
Amer. Philosop. Society

6 Decem 1869

Cambridge Mass Oct 23 1844

Right Rev Bishop Mines

Rev. Sir

My object in addressing you is to learn whether I may send to you at New York, to take with you home a light package of 4to size say about that of a volume of Rees' Encyclopedia - containing specimens of American Money for the use of St Helen's Hall Portland Or. selected from my Cabinet in accordance to a promise made last May to Rev R.L. Mewing. I have it in readiness to forward at any moment

Mrs James desires to be kindly remembered to you

Please inform me and oblige

Most respectfully Yours

Thos. P. James

44 Brattle Street
Cambridge Mass.

Cambridge June 11. 1877

S E Cassino

S E Cassino Esq

Dear Sir

Your letter of enquiry of the 5th ult. came duly to hand — the gentleman with whom I am connected in the preparation of a synopsis of the North American Mus. resides in Ohio.

We are patiently laboring over the work and it will be a long time yet before it will be ready for the publisher as we purpose to make it thorough.

It will require a considerable outlay to bring it out — the plates requisite will be necessarily expensive — Are you willing to undertake the publication of it — bearing all the cost and allow the authors the usual per cent on the sales?

Respectfully Yours
Thos. P. James

PUBLISHERS & IMPORTERS
OF
STANDARD
SCIENTIFIC WORKS.

S. E. CASSINO,
NATURALISTS' AGENCY,
Salem, Mass.

DEALERS IN
BOOKS, INSTRUMENTS.
and MATERIAL used by
NATURALISTS.

May 31 1877

Prof. Thos. P. James
Cambridgeport, Mass.

Dear Sir,

We hear you are at work upon the Mosses of this country, and as we have many calls for a work on that subject, we take the liberty of writing, to inquire if you have made arrangements for publishing. If not, and you desire a publisher, should be pleased to correspond with you on the subject.

Yours Respectfully

S. E. Cassino

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S. E. CASSINO,
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Salem, Mass.

DEALERS IN BOOKS, INSTRUMENTS, and MATERIAL used by NATURALISTS.

July 9th 1877

Prof. F. P. James
Cambridge, Mass.

Dear Sir;

Your favor of June 11th duly received, and would have been answered before this, had I not been ill and unable to attend to business.

As the work is not ready for the publisher, perhaps it will be best to defer the matter until it is further advanced, when we shall be pleased to correspond with you.

Yours Respectfully

S E Cassino

PROSPECTUS OF AN

Important Work on Ferns.

ILLUSTRATIONS OF

The Ferns of North America.

Text by Prof. Daniel C. Eaton, of Yale College.

Illustrations by Mr. Jas. H. Emerton.

Published by

S. E. CASSINO, NATURALISTS' AGENCY.

Salem, Mass.

The need of a carefully prepared, and thoroughly illustrated work on the American Ferns, has long been felt by those studying these beautiful plants. As yet, no work whatever has made its appearance which contains even a description of all our American species, and the few that have been figured at all, are found scattered through so many foreign works that it is quite impossible to find them, even in an excellent library.

Prof. Eaton has for a long time had in contemplation the writing of a work which should possess all the requirements of a scientific student and at the same time be so popular, and so thoroughly illustrated that those unfamiliar with botanical methods could be able with perfect ease to determine any of our American Ferns.

The great cost of preparing the plates, suitably drawn and colored, for illustrating a work of such extent, has until now, debarred publishers from undertaking its publication. The undersigned has decided to undertake to publish the work, believing that he will be sustained by the Botanists of America, and that his facilities for properly bringing the work before the scientific world are unsurpassed.

The services of Mr. J. H. Emerton, so well known for his remarkably accurate, and highly finished Natural History drawings, have been secured to illustrate the work. Mr. Emerton's great experience as a botanical draughtsman, and his knowledge of botany will give assurance that the illustrations will not be excelled by any yet published and that the work will be a fit companion to the "Wild Flowers of America," now publishing.

Prof. Eaton's herbarium of Ferns is the largest in America and he is constantly in receipt of additional plants from all parts of the country. He is therefore in a position to better conduct the work and furnish the necessary specimens for illustrations than any other person. Besides the labors of Prof. Eaton and Mr. Emerton, Dr. Gray of Cambridge, has expressed an interest in the undertaking and kindly offered the use of the extensive herbarium of the Botanical Gardens, for consultation. The Mass. Horticultural Society has also freely offered the use of the Davenport herbarium of ferns. The publishers will also have the assistance of Mr. J. Robinson, well known as a Fern specialist. Mr. Geo. E. Davenport and Mr. Chas. E. Faxon, of Boston, Mrs. Cooper of Santa Barbara, Cal., and others in various parts of the country, have kindly offered their assistance.

Hon. J. Warren Merrill, widely known as having the largest and most valuable collection of American Ferns in cultivation, has very liberally offered living specimens from any of his plants to be used in making the drawings and in coloring.

The Work will be issued in large quarto parts, at intervals of about two months, which is as fast as the plates can be prepared. In the course of the publication of the Work, every species known to inhabit the U. S. will be figured. Each part will contain three elegant 4to plates, colored by Chrome Lithography, giving exact representations of from one to three species each. The paper on which the plates are printed will be the best in the market. It will require about twenty parts to complete the work.

The text will be printed in large beautiful new type by the well known firm of Rand, Avery & Co., on super-calendered paper, made expressly for the work.

The Subscription price, will be $1.00 per part, which it is believed, is lower than any work of the same nature and quality yet published.

Botanists, who desire to inspect the work before subscribing, will receive a sample plate and text, by mail upon application.

For the benefit of any young botanists who do not feel able to purchase the Work, the publisher offers an opportunity to obtain a copy, by procuring a few subscribers in their vicinity. Any lady can easily obtain four subscribers for the Work among her friends and thus secure a copy for nothing.

AGENTS WANTED.

Cambridge Mass May 28 1879

Dr. Chas. Mohr
Mobile Alabama

Dear Sir

Your consignment of Mosses (Sphagna) Mr Lesquereux sent to me last of April – I have been absent on account of my health, and having now returned home I have examined and now enclose them to you as Mr L. desired, with remarks – viz

No 1. Sphagnum cuspidatum var fluitans
In good fruit with immersed globose capsules 1 to 4 capsules to capitulum (not Sp. serratum Mass)

2. Sphagnum macrophyllum

3. Sphagnum contortum Schultz
This plant compares with Sp. contortum as determined by Mr. Lesquereux from a Jurassic specimen in Sullivant's herbarium

4. Sphagnum subsecundum var. Lescurii
Is identical with Sph. subsecundum in Sullivant's herbarium & had been named Sp. Lescurii, but had after further investigation found to be Sp. subsecundum var. L

5. Sphagnum cymbifolium –

6 Sphagnum cyclophyllum

7. Sphagnum contortum v. Lescurii ?
although its structure corresponds with this species – the aspect of the plant is very different –

I submit this hasty report and remain
Very respectfully Yours
Thos. P. James

Cambridge Decem 18th 1879

Dear Sir

I have your postal card of yesterday — You remark that you have seen authentic specimens of all our new mosses except three — Now, I do not think that I have sent you all and to criticise plants from other sources would likely lead to mistakes. —

I informed you that I had not a specimen of Tess. Floridana and that I gave it to Prof. Schimper expecting to find more in my herbe — I submitted my sketch to him and the plant — you have seen this sketch

When I made up the article for the Academy I had not examined or looked up the Drummond plants as I did not consider it necessary coming from Prof S. I have since the publication examined the two plants and I find his Plagiothecium Pseudo silesiacum to be P. Muhlenbeckii and Systegium erythrostegium to be Sullivants Amblystegium Ludovicianum — as Sullivant says

The Bryohia brevicaulis — Mr Sullivant considered this to be B. Bryuchiana — and therefore made his illustration from it — and he said the spms from Ills & N. J. were the same but not so mature — I have looked into both and do make them distinct and most likely the B Bryuchiana — Prof. S. decided B. brevicaulis not.

The Wolfia Wolfii I had just rec'd from Mr Wolf when I wrote to you sent specs to you without examination and as I ~~never~~ seldom could get exact da

plecaty of him ~~which~~ of ~~them~~ such as I had requested of him and I have doubts whether those sent are any thing else than W. viridula I will look at their cap

The ~~Carex~~ Trichostemum cuspum I found to be T. flavescens —

Please send an abstract of your notes on our plants

I do object to your publishing them in the Bulletin

I got your letter of the 4th inst just as I was closing a letter to Mr Sargent and as I always defer to him all matters about our plants I at once sent your letter to him simply reading it over, Mr S. is quite unwell and fully engaged in closing his Paleontological labors and has not ~~had~~ examined the contents of my letter

I recollect one remark from you that you have no copy of Boyd Europ — only Schimper's Synopsis of 1840 If you had Bruch & Schimper's Bry Europ. and Schimper's last Edition of his Synopsis 1876 you surely would not make so many new species of plants which eminent Bryologists make as varieties

Cambridge Jan 5th 1880

Dear Sir

Mr Lesquereux has returned your letter to me ~~that~~ which I had sent when at the point of sending one to him — I now have perused it more carefully —

A number of your mosses I have not seen as you have not sent them ~~not being sent to me~~ ~~by yourself~~ — ~~the~~ for which ~~which you did~~ send I ~~have sent~~ duplicated ~~sent him me~~ to Mr Lesquereux who has not returned — ~~I had sketched~~ sketching under the camera a leaf of each which he has not examined nor returned so I have not any of those you mentioned there were four

I have recently sketched under the camera a number of plants for Mr Lesq^r^ eye to get grow in close some to you for inspection all of which I desire returned as I wish to send them to Mr L.

The first and largest slip embraces leaves sketched only as no other organs are developed The lowest ~~or~~ first is your Hyp recurvo-marg. leaves of the variety of forms.

The next is Hypn Watsoni

The third is Hypn Alaskanum —

The fourth is Hypn Haufleri specimen given me by Prof Schimper —

The fifth is Sterecodon plicatilis I send in a small packet a few scraps about ⅓ of all I have, Keep it This specimen was given to me by Mr Mitten at his home interior of England when I made him a visit — You will observe it is from Norway ~~by~~ by Sommerfelt and is the plant of which he says — "appears to be the male plant but is much less than "any of the American specimens" see in Hum p. 40

I submit these sketches ~~for other~~ companions all are drawn under the same power of the camera

I call your attention to your remark – "I see "you describe the operculum (the only fruiting sp "was cut up in making diagnosis) as rostrate it is "not so in my only fruiting specimen from Colorado "Wolfii but conic and very obtuse about as Mitt "describes it in A. pleiatile" – Now Sir I have always considered that the operculum was an important character –

Archidium longifolium I have just sketched from the original sp – Drummond's No 12 ~~I may have sent one from another packet~~ not 112 –

Fissidens Floridanus – I repeat for the third time that the specimen from which the diagnosis was made I gave to Prof. Schimper and that I have not a sp. I did expect to have found some among my Findings at home but failed –

Weisia Wolfii – I send a few specimens of this distinct species for your examination you cannot fail to see the distinct characters – you will readily see arcuate-recurvis form of the leaf on being wet – and the long tubulose apex part of the same – In all W. viridula I observe that the leaves become erect on moistening them – I have not much of it I wrote to Wolf for more and he sent me what he considered the same and of which I sent you some, but not a single plant of W. Wolfii could I find – It is not the first time in which Mr. W. was mistaken Our plant grows in a clayey soil –

so you now consider that the W. Rauii and the W. Brandegii – ~~is~~ are varieties of W viridula – I believe you will have to acknowledge some other errors –

Brachin brevicollis I have heretofore explained that Sullivant had pronounced – my B. brevicollis and my specimen from Burlington NJ and Dr Vasey's Illinois plant were all B. Buxbaumii believing so he selected my B. brevicollis being the most mature plant from which to make his illustration – I have sketched the N.J and Illinois specimens which I submit

I sent you Sphagnum Barbii – the plant you sent me I wrote to you was not the same species

I detected long ago that my Trichostemum tortifolium = T. crispum) was T. flavo-virens and so informed you after which you ~~when~~ had examined it and found it was right –

I presume Mr Sullivant never informed Prof Schimper that Drummond's No 111 was Plag Muhlenbeckii or that ~~Dim~~ – No 10 was his sp. nov. – Astomum Ludovicianum –

In the Jour. Linn Soc May 1872 p. 190 is an article by Lindberg on ~~Zoopsis~~ an Hepatic & has no reference to Leptotrichum Hetmomed.

I presume you have seen Lindberg's ~~paper~~ article in Manifestus Muscorum in Secundus at page 48 & when he makes your Microdrium = Nanomitrium ~~or your~~ Microdrium was pre-occupied by Mitten are you content to adopt this change? and to substitute the name Nanomitrium for micromitrium? Please reply to this question

I wish all the enclosed sketches returned that I may submit them to Mr Sullivant –

Please send me the abstract of your critical remarks on our New Species

tion of a list of Colorado Mosses being published
Those sent to you were from a large collection which I
mentioned to you in mine of 28 July had been sent to me
by Dr. T. P. Rothrock and was collected by Professors
Geo Wolf & Dr. Rothrock ~~was~~ 1873 at Green Lakes etc.
I declined undertaking this work but no refusal would
be taken so that my whole time has been absorbed in the
examination since 2d or 3d Jany last. I have examined
the lot and revised my examinations and am tol-
erably sure of their names. Upon Dr examination
I found Paglovia serrata to be P. splachnoides. The Bryu
I made out. I think the Hyp. cupressiforme to be too
distinct for that species. I made a mistake in H. uspar-
ium I meant H. undulatum it was a slip of the pen.
The Grimmias of the Colorado mosses I have yet to
look through, but if you can look them over I would
like it but if it injures your eyes do not examine them
The only decidedly new plant in the set is No (782)
a Dermatodon sent in letter of 28 July.
There is a plant which I had named Bryum argenteum
with a singular malformed capsule. That I took
up again to day and as the whole of a pretty large tuft
seem so uniformly malformed I thought it
might be regular and looked for its likeness in Schimper
Synopsis and I find Bry microthecum p. 314. to come
nearly to a description of the plant not quite I send
a specimen more if you want
I find the collection of Wolf & Rothrock has nearly
all that you have reported in the Porter Synopsis
and a number more not then enumerated

Very truly Yours
T. P. Sonney

Cambridge July 28. 1874

Lee Lesquereux Esq

My dear Sir It is now about the time limited by
you for my sending the discovered specimens, say six
weeks from the date of your last letter. So I make up the
parcel
I did not know that you had access to the plants of
the late Mr Sullivant which I sent him. Still I think my
Brachythecium brevicelle differs so materially from the B. Bry-
chanum which I collected at Burlington Mass. also from
the specimen which Dr Vasey of Illinois sent to me that
I would like you to look at them. I accept your offer
of Austin's New species from Texas which I have not
had as yet seen.
I send enclosed the following species viz.
Schistodon Connianus from Ontario for identification and
is all I have than return.
Oxycinodon pulvinatus from Alaska as proof that
it exists on this continent.
Grimmia anodon from New Brunswick which
Mr Sullivant confirmed also
Grimmia anodon from Colorado.
Grimmia elongata Aso Sierra Nev.
Grimmia unicolor from Aplin N.H.
Grimmia unicolor from Ontario
Barbula a new species from Alaska
Dermatodon new sp. from Colorado (782)
No (34) Collectors No. — from Ogdensburg N.Y. I
cannot see precisely what but you may be familiar
with it and be able to recognise it I send all
of it. I have requested Mr Patterson to get more
in later season — ripe capsules. —
Paglovia serrata in fruit from Colorado.
Bryum cyclophyllum from Pecono Mts 1868 N.Y.
— not — from Sonoma.
— latifolium from Franconia N.H. 3 P.
— Muhlenbeckii from Ontario
— Blindii? (1) (2) (3) from Ontario
— New (554) from Colorado not B. cuspidatum being
distinct

Bryum No (997) near the same from Colorado
Bryum panctatum New added may be N.S. all
of it – please return part of it
Pseudo-leskea also virens from N.H. (Austin)
Myurella julacea from Ontario
? ——— ——— in fruit from Colorado (707)
Hypnum acutum Mitten formerly sent to you No 1025
& from Cambridge No 609 b. also from California &
the slip that I had just copied from the Linn
Soc Jour which I have copied now in a book
you can verify it – Keep all –

I add specimens from a collection which I am
now examining collected in Colorado by Dr A. P.
Rothrock last autumn
Cratoneuron purpurea a peculiar form varies
Grimmia Ovata? (809) collector's number
——— montana (808)
——— calyptrata (808 b.)
Orthotrichum (803)
——— (809) I have an order of the species
——— (810) but Mr Sullivant has so altered
species that I do not know
what they are now
Bryum New Cantonense (664).

I have determined the following if you would like
it – I will send specimens to confirm &c
Dicranoloma Lawrei good specimens
Bryum corrhatum
Bryum dimicrum first time found in this
country that I am aware of
Bryum pallens
Bryum pallescens
Bryum cirrhatum = B. pendulum fine fer-
ile with terminal male clusters & portions of them
Bryum elongatum from plants and other specimens
which may be of use as new localities
I am now at the Hypnaceæ of the same (Colorado) collection
and find Novelties I will send if you wish as I
proceed

Most respectfully Yours
Tho. P. James

Cambridge April 2. 1874

L. Sullivant Esq
Dear Sir

I have now examined the whole
set of Colorado mosses and have found but few that
may be pronounced New species – I have remem-
ined those of the set sent to you 28 July last & believe that
the only new plant is (782) Dermatodon. What do
you think of it?

I make of No. (557) & (997) = Bryum pseudo-
triquetrum – slender form of (664) = B.
and (803) = Orthotrichum Rexianum (809) = O.
stellatum (810) =

I now enclose for your acceptance a specimen
Hyp. Sprucei H. Rockii – I enclose with this the only
specimen of H. Rockii recently received that I have
after comparing please return (the original specimen
I mean) and Hypnum riparium of a peculi-
ar form & texture

I understood from the late Mr Sullivant that
he had a set of specimens of the 149 "parallel published
in Jour. Linn Society by Mr Mitten 1864 and as you
have access to his herbarium I would be obliged
if you would compare No (623) with his stenodon
plicatulus and No (817) with stenodon complanatus
My two specimens approach St. cuspidatus form
they want the yellow enlarged alar cells to the leaf
and are named & marginatus, etc, etc, Have not seen
specimens of Mitten's but think that are
very like

Cambridge Apl 15. 1874

L. Sullivant Esq
Dear Sir Only a few days ago did I
receive a copy of Porter's Synopsis of the Flora of Colorado
with a government stamp which is the first infor-

Cambridge Jany 20 1875

L. Lesquereux Esq

My dear Sir

Your letter under date Jan 7 intended Dec 10th 75 came to me a few days ago having been missent — Post marks are Columbus Jan 11. Cambridge Jan 13 (may or maryland) and Salem Mass. Jan 15. — Your Post M. seems to me to be very negligent

You kindly offered to supply me with Bryum pendulum var montanum — I wished this to compare with the Wolf Rock Colorado Moss to note whether identical —

You now offer me more species of the Porter synopsis I would like specimens of the following if you can spare them understand me if you can spare without robbing yourself not otherwise —

Phascum carnolicum —
Dicranum Muhlenbeckii
Dicranum rhabdocarpum I have poorly
Campylopus Halli — } I have ~~Campylo~~ new species from Hall & would like to exchange —
Campylopus fragilis }
Orthotrichum Utahense

Eucalypta rhabdocarpa var to compare
Dicranum Fœlicianum
Dicranum Horuschuchii
Bryum Muhlenbeckii
(these are some species of the California coast which I have not seen)

How does the Supplement & the Sconey progress

Very truly Yours

Thos. P. James

Cambridge Feby 8th 1870

J. Lequesne Esq

Dear Sir

Your packet of Alaska Mosses with letter came to hand on Saturday night — Mr Rud Oldby wrote to me some weeks since requesting exchanges of American for German mosses I acceded to his request — this duplicates are mostly all of such as I have only single mounted specimens — I have not yet selected such as I can furnish my whole time being absorbed with the Sporon Stem mosses also with a set of undetermined Jamaican Sll. mosses for Sullivant's Herb. there I have now identified & will return to the herbarium —

So this morning I sat down to the Alaska mosses and the first I took up was the "Atrichum crispum" and this has kept me the whole day and I have compared the two distinct species therein with all likely species that I have and cannot find any thing like them. Neither of the plants are Atrichum crispum although at sight I thought they were of the short capsule variety of that plant but under the microscope they are totally different. They are assuredly new species so far as I can find. I ~~should~~ hardly think they are in Carl Müller's syn.

I prefer sending them to you (I send every stem) than sending to Mr Oldby and copying my notes on them — that they may not be sent abroad for duplicates

~~I intend to send them again~~

It would be well to get ~~complete~~ entire specimens

Cambridge July 15. 1875

Leo Lesquereux Esq

My dear Sir

Dr. Gray called on me to day, he represented that you on your visit to him yesterday ~~stated~~ expressed a willingness to bring out a synopsis of the mosses of this country if I would join you in the enterprise. He approved of the project in toto and thought there was no time to be lost in its preparation, I told the Dr. that I had not the slightest objection to do so, and was willing to join and do everything in my power in working it up. Our interview was short and he gave me no particulars as to the plan but requested me to write to you on the subject

When I last saw you (in Cambridge) I

understood you to say that as soon as the Supplement to the Icones was finished you would at once prepare and publish a manual of the mosses and I infered you were getting out the materials for that object, nothing whatever was hinted ~~that~~ about my joining in the project

I would be glad to hear from you about the matter.

I have just completed an examination of a set of Mosses for Dr Gray of the Mosses collected by Dr J H Kidder in Kerguelen Island, during a visit to that Island for the purpose of making observations of the transit of Venus

I made out about 30 species

Very truly your old friend

Thos. P. Jones

Cambridge Aug 3d 1875

S. Lesquereux Esq
My dear Sir

I am pleased to have your favor of 30th ult. we seem to understand each other with regard to the work of bringing out a synopsis of the Mosses of this country I shall do my best throughout the work – The purpose of submitting all to European authorities is a good thing for I think that most of Austin's new species will be ignored when submitted to such bryologists as Schimper & Lindberg – I hold myself in readiness to set to work when I get the first consignment from you

You have stated very precisely how the synopsis should be gotten out I like the plan in every particular and am fully convinced that no one but yourself is capable of doing the work properly I submitted your letter to Dr Gray and he said "well" the plates used in his manual he think can be had or if not he would hold the publishers of the manual responsible and if they have lost them he would cause them to make good the loss – he says they figures were too crowded and too contracted that Schimper improved upon them

I would not apply to Austin just yet to procure a synopsis of the species –

I have no idea of publishing a synopsis

myself I have fondly entertained the thought that now we should have ~~an~~ a complete work from your handy as to a co-operation with Agstin or any other party ~~I said~~ to Dr Gray ~~I would not have~~ repudiated all idea ~~in him or any other~~ of such a connection

I can fully appreciate the visit you enjoyed at Prof Porter's I have had much pleasure in my repeated visits at his domicil

I divided the collection of Mosses collected by Dr Kidder at Kerguelen Island which he had made observations on the transit of Venus — cute 6 or more parcels and as Dr Gray mentioned their destination I suggested that one be sent to you which he accorded to — I made 2 new Genera, ~~you will~~

He gave me a few mosses from Hobart Town among which were several interesting and new but I infer you have all from that quarter I have largely from that part of the world from Sir W J Hooker & Wilson —

I have just examined the mosses collected by Dr Palmer M D, at Guadalupe Island off California this year — among them I found some so interesting that I send you three, two at least is new to this country — the Barbula rigida var. pilifera this variety has not been reported — it is undoubtedly that variety Tortula (Barbula) atrovirens is new it has so many synonymy — Mitten carries it back to Smith Eng Bot where it was first described as the Grimmia atrovirens & Barbula vinealis is a good find the ~~other~~ rest of the plants were Grimmia Barbula etc.

Dr Gray gave me a few mosses from Hobarton — among which were several interesting species but I infer you have all from that quarter — I have largely from that part of the world given one by Sir W. J. Hooker & Mr Wilson

I have just examined and determined the mosses collected by Edw Palmer M.D. of Guadalupe Island off the coast of California — among them I detected some so interesting that I enclose 3 specimens two at least are new to this continent

The Barbula rigida var pilifera this variety has not heretofore been reported it is unquestionably that variety — Tortula (Barbula) atrovirens Sm. is new — It has so many synonymes — Mitten carries it back to Smith's Eng Botany, where it was first named under Grimmia atrovirens — The Barbula vinealis is a good thing — The other plants are Grimmias, Tortulas, etc.

Very truly Your old friend
Thos. P. James

Cambridge Aug 3. 1870

L. Lesquereux Esq
My dear Sir

I am pleased to have your welcome letter of the 30th ult. We seem to understand each other with regard to the work to be done in bringing out a Synopsis of the Mosses of this Country. I shall do my best throughout the work. The purpose of submitting all to European authorities will be a good thing — I think that many of Austin's new species will be ignored under such a test as the critical eyes of Schimper and Lindberg

I hold myself in readiness to set to work when I get the first consignment or order from you. (I purpose on Saturday of going with part of my family to make about two weeks visit to Philad.) and I am not sure but that I shall have to go to Chicago Ills on the 8th Sept — I am and have been the Treasurer of the American Pomological Society for twenty five years, and the Association is

to meet at that time at Chicago)

You have stated very precisely how the Synopsis should be gotten out. I like the plan in every particular and am fully convinced that no one but yourself is capable of doing the work properly. I submitted your letter to Dr Gray and he said after reading it "Well" – the plates he thinks those used in his manual can be had or if lost he would hold the publishers of his Manual responsible and cause them to make good the loss – He remarked that the figures were too crowded and contracted – that Schimper had improved upon them. I cordially approve of the suggestion that we prepare all things quietly by ourselves for certainly Austin would be tempted to forestall our work otherwise. I would not apply to Austin just yet to prepare a synopsis of the Hepaticae – How does he stand in the estimation of foreign authors of Hepaticae?

– I have no idea of publishing a synopsis of Mosses myself – I have fondly entertained the thought – that now (when you publish) we should have a complete work. As to a cooperation with Austin or any other party, to Dr Gray I repudiated all such a connection and I told him that I would not join any one in the matter but yourself – What extent of Country did Mr Sullivant purpose to embrace in his Synopsis? Only the United States embracing Alaska? or did he intend to take in Canada and the British Provinces?

I can fully appreciate the visit you enjoyed at Prof Porter's – I have had much pleasure in my repeated visits to his domicil. – I divided the collection of Mosses by Dr Kidder at Kerguelen Island made during his observations of the transit of Venus last autumn in to 3 or more parcels and as Dr Gray mentioned their destination I suggested that one be sent to you – I made 2 new Grimmias

In your list of Skheyma you have Sp. you have Conspectum under acutae a var of molle — and rigidum under obtusae Some of my plants have a label Sp humile v. conspectum — Some Sp conspectum var rigidulum etc I will try to make them out

I send a few plants of the Astragalus Lescurii N.S. (one of the two capsulate) and the printed description from the Bulletin I did hope to have had more plants of this very interesting species — You wrote to Bolander for the Alaskaian Pogonatum on the 28th March last did you ever get the plants?

x demanding of Mr Kellogg the communication of all his Alaska mosses or at least of all the Polytrichacea —

I should like to see the Pogonatum contortum again intermingled with which came our new Astragalus — It is distinct from your Pogonatum contortum from California by Bryan

I called at our Post Office about the charge of the additional 15 cents — but the P.M. could not call to mind any thing about the package — I may have made an error in weight of the parcel yet I think it could hardly have weighed 5 ounces I refund the 15 cents which you paid I claim this as my right to correct

Cambridge October 20 1875

V. Lesquereux Esq

My dear Sir

In reply to yours of the 17th inst — I thought it best to copy all remarks found in the Sullivant herbarium solely for yourself thinking you might not know of them not that you were to send them to Schimper but to use them in writing to him I did not omit any remark not knowing but it might have a bearing on some species — I wrote them mostly as the Sullivant did not refer to the Scenes for the plates of the plants but hurried them off that they might be in time for your letter to Schimper —

My very rough sketches were scratched off merely & simply to point out what Mr Sullivant's remarks alluded to — I hope you have not not will not send them to Schimper I copied every remark desirous that nothing should be omitted that might have the least bearing in the matter

I had before I went to the Sull: herbarium put up specimens of Micrometrium from my own slender stock in some all I had from Austin but a few I found such a quantity in the herbarium I kept mine — I have by no means impoverished the Sull: herbarium there are three or four large consignments from Austin and thinking it important that Schimper should have full examples to examine I did not examine these plants I had no time for it to see if there were good specimens, I thought best to send a liberal supply as much that is sent by Austin to me has but few good plants in his parcel sent.

I have only taken those sent for Schimper none for self

I have not nor will not take a single normal specimen not even ~~duplicate~~ doublet this Herb must be kept in tact when examining some Sphagna I took my microscope with me to the Herbarium and examined microscopic specimens and even chose some of them returned to the packets

But when I went for the Sharcaxa I did not have my microscope but picked out very small specimens (except of the micromeria above explained)

I spoke to Dr Gray about taking of the Micromeria before I went up to the Herbarium letting him the importance of sending them to Schimper he at once assented to my taking such duplicates — In future I shall submit to him such specimens as are desired by you before forwarding them and so let him see the extent of the selection — I regard the plants as you do as "inalienable property".

I have selected liberally from my own stock of Sharcaxa that you might have of every species to select for Mr. Schimper not that you should send all to him, but that you might have packets to take whatever you wished fearing you might not have what you desired — You may keep all that I have sent

I had no reliable specimens of Ep. Coharnus so I picked out the small sample for the Herb. of E. Sarratum for Schimper only thinking it important — And E. papillosum for him only

of Buchia brevicalla I send all I have except one or two specimens — Did I write it Brevicollum? if so it was a blunder — I do not wish you to send such a blunder to Schimper and have ~~wanted~~ written another packet to put the Specimen into

I add all I have of Buchia Bigelowiana from D'Vorey Islands; it is better that Mr Schimper should have all advantage we can furnish I infer there is a small example of it in Sull. Herbarium which I sent to Sullivant

I send also best specimens of my B. Bigelowiana from Burlington N.J. I thought I had sent in my last of this — I do not find a specimen of B. Bigelowiana so reported by you although I think I sent it to you under No. 23.

I had not seen Schimper's paper on the Drummond species of Buchia in the Journal of Botany else I should not have sent from my set of Drummond Nepsey

I leave to you my foreign specimen of Eph. Gossile and if you think it necessary you may send it to Schimper

I send examples from all of my specimens of Acanthon lest you might send them also of Sharcaxa cuspidatum

I am under obligations for the Pearsonias

I have been going over my stock of Sphagna not nearly through yet there are many specimens I find among them specimens of yours from me which seems to have been returned somehow I have had them under the microscope — I now return them as some may be of service ~~to you~~ more in looking specimens for Schimper

I am puzzled with regard to Sphagnum compactum and Sph. rigidum and can hardly determine to which my plants belong

Austin Mr megalosporum is synonymous with
Nan tenerum

Prof Lindby has much to say about Ephem
rum which I want to look over more ~~care~~
carefully and some time hence will return
the paper (Lindby's) to you or you surely will require it
He makes a new species of E. hystrix of
Drummond) ~~sem~~ Phas. serratum v. S angus
tifolium (will you adopt it in your list?)

of what his E. minutissimum K.S. is as from
Hob: ad Philadelphia (James) – I cannot tell
how he should have this unless it came
thro' Austin – for he (Austin) some where
about a year since wrote to me for specimens
of all ~~my~~ the Ephemera that I had that he
might send them to Prof Lindby – I did
send specimens of all I had but among
them there was none of E serratum from
Phelad) it must be a mistake of Austins
I did however put in specimens of Eph
serratum from the Botanic Garden Cam
bridge of the same that I sent you recently
to select from to send to Schimper
Rinche in overhauling Spruce's, & A Moser I detect
ed an Ephemerum the smallest or most minute
I have yet seen reporting it as new and sending
it to Austin for Lindby whether he ever sent it
I know not – may be it is his E minutissimum
Austin has without my consent published
this plant in the Bulletin as Eph Jamesii
there seems to be confusion in whatever Austin
undertakes He has published many new
species and many have some good one what is
to be done with regard to them?

Yours truly
Thos. F. Parry

Cambridge Nov 1. 1875

Dear Sir

My dear Sir

Your very acceptable
letter of the 24th ult. came in due time
I had been for days past making a close
examination of the Sphagna in my Herb
among them several occurred that I
could not determine – two of which I
send specimens with observations –
The one which I collected at Shelburn
N. S. has puzzled me – It is not S. laricinum
the leaves on the branches terminating
are too long narrow and second – the fruiting
specimens figured in Icones are from foreign
plants and differ much from my specimen
Neither do I consider it sp Subsecundum
and have come to the conclusion that it
is sp nov.
(Now! it is from Nova Scotia – What was Mr.
Sullivant's intention or your own, as to the ex-
tent geographically of North America to be em
braced in the Synopsis? please define the
limits to be embraced)
The other sp.n from Budd's Lake has not
the aspect of S. fimbriatum nor Girgensohnii
the branch leaves too obtuse and broad – the pe-
culiar reflexed perichaetial leaves is not men
tioned which I found in all that I detected
I enclose a copy of a slip of Sullivant's "Claves" –

The only American Andraea in Sullivant Herb. was A. Rothii Mus. Allegh.
I cannot make the Alaska Andraea any thing else than A. petrophila var. robusta
And among the Weissiaceae only Gymnostomum curvirostrum — no G. rupestre —

I found — a sp. Weissia microdontia Mx. n. s.
Chapel Hill 888 W.S.S.
In montibus Carolin. septentriod
— (I never heard of this sp. n.s.) Cary & Gray July

Kindbergia — was fugax Mus. Allegh

There is an Hymenostomum microstomum
Sab Marco var brachycarpum
Texas Dr. C. Wright 1849

I cannot understand why there are not representatives of each species in Sull. Herb.

I will now take up my stock of the Weissiaceae whilst you are preparing your series. I think I can spare you a supply of most of the species

I have just received a few plants from Mr. J. Wolf one of which is interesting — I will look at it again tomorrow.

I have not as yet compared Dicranodontium nitidum with my small specimen of Campylopus fragilis — I cannot find any remarks of yours about the agreement of the two specimen have no recollection of your having called my attention to the similarity of the plants otherwise I should have investigated the matter before I published D. nitidum —

You will keep the specimens of Sphagna which I sent to you — they are yours and how they came to be sent back to me — I find two no. of the set of those sent by you to me in Sullivant Herb —

The printed pamphlet addressed to you by you and in your hand, it appears to be published by Prof. Lindberg I observe he makes Sphag. neglectum (Austin) synonym to Sph. laricinum also Sullivant's Ohio Cranberry Marshes" under same — and Austins Sp. neglectum var. no 27 under his var. β tenellum — and his var. γ platyphyllum (Sull.) Lind. he makes Sph. platyphyllum n. s.? ed var. Sph. neglecte? Sull. mss Dec 1868 — and his var. δ. cyclophyllum (Sull.) Lind. embraces Sph. cyclophyllum S. & L.
Do you purpose to adopt his arrangement?

And we come to
That excellent work Musci appalachiani by the very conspicuous friend C. F. Austin — who makes his new genus Micromitrium near to Ephemerum — which is now lost because the name had already been given to a genus by Mitten —

When Austin first brought out his new genus Micromitrium and wrote to me sending specimen in my reply dated April 19 1870 I commented fully upon his M. macrospora and I added "with regard to the word Micromitrium Mr. Mitten has adopted it for sect. 4 of his arrangement of species of Macromitrium" so that he had sufficient notice and might have conceived another name — it is now however lost and Nanomitrium given in its place by Lindberg — whether even this will stand we expect to know from Dr. Schimper after his examination of plants sent to him by you

Cambridge Novemb^r 1875

L. Lesquereux Esq

My dear Sir

I wrote enclosing several specimens of Muscī on the 1st inst. I have not heard from you since, and know not whether the letter has been received – knowing of the frequent failures thro' P.O. I would suggest that you inform me of the receipt of letter &c by dropping me a postal card simply telling me that ~~the~~ it is in hand –

I enclose – A moss Astomum that came to my hands on saturday last – I do not find it described – It is not Ast. nitidulum from the shape of capsule and the fullness of the sporangium (the A. nitidulum in all cases shows transparent margins around the sporangium) the length of the pedicel at least 4 times the length of the A. nitidulum &c It is not A. Ludovicianum by comparison with No 10. of Drummond, Mosses from its size and the shape of the capsule A. Ludovicianum being oblong ovate with a short blunt operculum of light lemon color and the length of the pedicel being fully twice the length of A. Ludov. and in having but one capsule to a perichaetium the lower leaves also, are short ovate & the leaves of the A. n.s. terminate abruptly obtuse with a more long tenuing to the nerve. – probably you may know, I find only two of my packets, of what I think is Astomum crispum – more from the many branched plants than otherwise

Gymnostoma – Besides G. curvirostrum & G. rupestre – I have G. rupestre v. stelligerum G. calcareum from Alexandria Penn^a – from

Ontario co. — and from Little falls N.Y. by Austin which seems a larger specimen than the others and a Gymnostome from near Columbus Ohio which came into my possession when I was myself arranging Sullivant's stock — It may be some common plant about Columbus? about which you are familiar —

The Gymnostomum Sphaeum Austin from Dallas co Texas Bolly — as from a package which was given to me in the Herb. by Mr Gray of Sullivant's collection — Austin some time ago asked me for a number of specified plants which he had not — I furnished them and as I had just received this (G. Sphaeum) which appeared a variety of G. curvirostrum I sent him a specimen and asked him if he had seen such — not sending it to be named or to be described and the first I knew about he published it under the name G. Sophaeum — a full and explicit description you will find in the Bulletin — whether it is a good species must be determined — it surely is a peculiar variety at least if not a species

Gymnostomum Ranaeum Austin — published in the Bulletin Vol V. p. 20. this plant was sent to me by Mr Rau of Bethlehem ~~not~~ as a new species I replied that it was only a variety of Weisia viridula — the gymnostomoides which I had collected at & about Easton so Austin then published it as a new species in Bulletin which you will read — I have looked at it again and could only obtain 3 operculate capsules one of which had a beautiful peristome of course this was W. viridula but the others were gymnostomes without infexed teeth as given in Schimper but a thickened band instead yet — I do not on that account think it a Gymnostomum as given by authors as the leaves are in form of Weisia viridula — cuneiculate in the upper portion which I have yet to learn exists in Gymnostomums and by reading his description you cannot make much distinction over of Weisia viridula — please look closely at the matter and determine whether it be a Gymnostomum or Weisia —

I have found several of the varieties of Weisia viridula given in Schimper — Var. B. stenocarpa & gymnostomoides — which I have thought were produced by their position of growth on flat stones without soil in the shade as much as any thing else — I have them in small quantities — which if you wish I will send to you and if you wish to name them in the synopsis I will go over them again — Austin enumerates a number of varieties in his Musci Appalach. —

I send a very pretty variety of W. viridula with a short oval capsule almost orbicular a name might be given it according to this form of capsule —

Rhabdoweisia — I do not find any other than the fugax & denticulata — abundance of the fugax and sparingly of the denticulata which have been lately looked into of my stock —

I will now examine Seligeria —

If there are any of the plants mentioned of which you want specimens I will supply them

Cambridge Mass 12 1895

L. Lesquereux Esq

My dear Sir

I have to day taken down Vol XIX Musiacea of Sull: hub. again, and find that in my hurry the other day I overlooked some of the folds in laying off two instead of one so Gymnostoma were not reported I now give as follows — viz —

Gymnostomum curvirostrum "
another " " " Dubuque Iowa per T G Lea 1848
" " " " Niagara falls July 1845.
" " " Mounted Musci Alleghanies
" " " Rocky south side Gibraltar Island Lake Erie July 1872
W.S.S. legit

Gymnostomum rupestre 18 miles from Columbus Ohio 1890
" ~~Rocky south side of Gibraltar~~ above ~~Island Lake Erie July~~ 1872
W S S legit "

Q. Gymnostomum calcareum — In your wording viz — This is truly a good variety of Gymnostomum calcareum but it is not the var. G. viridulum. This has lanceolate leaves with large basis the margins very entire and the capsule oval-elongated — Mont. of California has the leaves linear-lanceolate obtuse with margins ~~very entire and the capsule oval-elongated~~ crenulate and the areolation loose and slightly papillose. the capsule is broad and short nearly turbinate — It is much like G. tenue in the areolation and form of the leaves but it has not any annulus and the capsule is shorter it is G calcareum

var. foliis lineari-lanceolatis obtusis capsulis brevi lato-pyriformis —

Inclosed marking on this paper by W.S.S. viz —
G. viridulum & G. calcareum are the same in Bry. Eur. both have separate plates No. III & IV. but in the text they are united under the name of G calcareum. Our most is G. calcareum var viridulum i.e. nearest to that and very close — it is not found in Britain

over —

Q Packed marked Bigelow California
Probably a Selgira and mo?

Gymnostemum calcareum
var viridulum Brid
Xylo Habit given Bryol. Europ. Gymnost. monograph

A plate on which was beautifully figured a plant with analyses — under the figures in pencil, viz — Gymnostemum calcareum N.M. var. pusillum — folis ~~ovatis~~ ovato-lanceolatis, margine crenulatis capsula pyriformi — ovali — on charcoal at New Mexico Xylo Habit given
Bigelow 1854
aff. G. Cal. var viridulum a Selgira? New?

Weisia viridula — a number of packets
= contraversa

Of Zygodon Mongueti no American specimens

Of Zygodon lapponicus
One specimen from Prof. Porter Mercersburg —
One small one Oakes Wolfe Co
So all the Zygoonts —

A Mnemangium Pickii with full diagnosis is permitted in Stanes Sched. —

this has lanceolate leaves with large bases, the margins very entire and the capsule oval-elongated - that of California has the leaves linear-lanceolate obtuse with margins crenulate and the areolation loose and slightly ~~A~~ above the capsule is broad and short nearly turbinate - It is much like G. tenue for the areolation and form of its leaves but it has not any annulus and the capsule is shorter it is G. calcareum

var foliis linearis-lanceolatis obtusis capsulis breve lato-pyriforme -"

In pencil mark on this paper is by W.S.S. viz -

"G. viridulum & G. calcareum are the same in Bry Europ - both have separate plates No III & IV but in the text they are united under the name of G. calcareum - our moss is G. calcareum var viridulum i.e. nearest to that and very close - it is not found in Britain

Packet marked
Bigelow California
probably a Selligeria & new?
Gymnostomum calcareum
var. viridulum Brid
Bry. Europ monographe
by no Habitat given"

A plate on which was beautifully drawn a plant with analyses - under the drawings in pencil viz -
Gymnostomum calcareum MSS. var pusilla
foliis erectis ovato-lanceolatis margine crenulatis capsula pyriforme-ovale -
on clayey ed New Mexico
no specific Habit given
W. Bigelow 1854
cf. G. cal. var viridulum a Selligeria? new?

No 21 G. tenue (Drummond, Mohsey) - Wilson in his marginal remarks - "This may be G. calcareum Brid. and which I think it is -

Cambridge Nov. 20 1875

Leo Lesquereux Esq
My dear Sir

You do not mention in your of the 14th inst. any thing about the contents of my letter of the 1st inst. I fear it has miscarried - if so I will repeat parts of it in my next.

I sent the Dicranum longifolium with my new plant Dicranodontium nitidum - a mere scrap merely to show the similarity of it to one of the specimens of the Dicranodontium to the Dicranum longifolium from the same locality - The other Dicranodontium seems so distinct that I think it is distinct from the other and hope it may stand -

Our specimen of Astomum from J Wolf is no doubt a variety of A. nitidulum not of A. Sullivantii - in some points it is near to A. Ludovicianum Florida Chapman in other points it is distinct - if you make varieties of A. nitidulum it should be named from its long pedicel - The Chapman is quite distinct from Drummond's P. crispum V. rotellatum = A. Ludovicianum which I infer to be a species.

Our plant differs but little from the following which I find in Sull. herb. marked thus -
"Texas!!! Phascum nitidulum Schf
" capsula globosa-ovata longius rostrata longissime
" pedunculata castanea aurantiaca vernicoso-nitida etc - Columbus Ohio 1865"
All the A. nitidulum that I have collected are much shorter in the pedicel and in the operculum and shape of the capsule etc.
The Astomum Sullivantii - San Marco Texas var - is Astomum crispum -
I sent and got of Mr Rau fine operculate specimens

of G. Rananum and I cannot find any thing to alter our notion that it is a variety of Weisia viridula —

I find a paper in the Sulls Herb from you which I simply give the following to remind you —

Astomum

1 Astomum from Texas — specimens collected by Mr. Wright — It the Amer. species nearest to A. crispum

2. A. Sullivantii

3 A. nitidulum

4 A. novum (In meadows near Terre Haute No 55.)

5. A. Drummondi — a peculiar species the sego the inflorescence — the form of the oval brown capsule the operculum the irregularly muricate spores than that these other species are peculiar characters —

The Seligeria (americana) in Herb Sullivant

Seligeria calcarea B & S Devil's hole near Niagara falls S W Clinton Legit Oct. 6.

! Seligeria pusilla
pusillo toto sinistrorsum torto'
Austin Oct 3 1868

Seligeria recurvata
June 1845 Limestone cliffs 18 miles ab. Columbus Ohio

Seligeria calcaria Mucé Alleghanies

Seligeria calcarea Limestone rocks below Clapp's sawmill 5 miles above Columbus Ohio

Seligeria tristicha from Sequoia —

The specimen from S W Clinton Devil's hole Niagara — I find has Seligeria recurvata — and some (little) of S. calcarea

(I have a specimen in my herb. received from Prof Porter some years ago — which is from S W Clinton Buffalo N.Y. which ~~I find contains~~ was marked Gymnostomum calcareum — and it has also Seligeria recurvata & S. calcarea — this may be the same as above —)

Seligeria pusilla from Austin is right I find.

Seligeria calcarea Limestone rocks, bed Clapp's saw mill 5 m. from Columbus Ohio
S tristicha with a little S. calcarea
Seligeria tristicha from Sequoia
is true —

~~No 3. Gymnostomum novum by Wilson, received May 8 1860 calcareum, Mrs Lyman Ohio~~

I have in my Herbarium the following —

Seligeria recurvata — from College Hill Easton Penna — May 1867 and Nov. 27. S.P.S. legit

Seligeria recurvata St John N.B. aug 1870 "

Seligeria recurvata — Owen Sound Ontario Mr. Macoun
" " Potawatomie falls " "
" " "
" " Lake Huron " "

In Sullivant Herbarium is a paper marked

Hymenostomum microstomum
San Marco Texas Bracheycarpum
C. Wright 1849

Hymenostomum microstomum
Cambridge Mass. S.P.S legit May 1871

In Sullivant Herbarium as follows

Gymnostomum

Gymnostomum curvirostrum
" " " Dubuque Iowa S. & Lea legit 1848
" " " Niagara falls July 1845
" " " Mucé Alleghanies (mounted)
" " " Rocks north side Gibraltar Lake Erie July 1872
W.S.S. legit

Gymnostomum respective 18 miles fr Columbus Ohio 1840 and the following paper in your handwriting

Q Gymnostomum calcareum

This is truly a good variety of Gymnostomum calcareum but it is not the var. G. viridulum

Cambridge
~~Columbus~~ 15th Decem 1875

L Lesquereux Esq
My dear Sir

Yours of the 12th inst is received

I infer my letter of the 1st Nov. 1875 has miscarried as I have had no answer to the query contained in it – after remarks on a Shelburn Sphagnum – "(Now! it is from Nova Scotia – What was Mr Sullivant's intention or your own as to the extent geographically of North America to be embraced in the Synopsis? please define the limits to be embraced –)

In some letter I had remarks about Lindberg's ~~pa~~ pamphlet just then rec'd about several of the am. Sphagna – also about Austin's Micromitrium and other Schemerosa – I have not looked into Lindberg pamphlet since but if you need it returned I will look it through and then return it –

Unless I hear from you to the contrary the Synopsis will extend to and embrace plants of the North – Canada – British America – Alaska and South to the Gulph of Mexico (not – Mexican) –

The name of the 101 in Drummond set is "No 101 "Dicranum Crispum Hedw. Banks of Baptiste River and near the "Height of Land" Rocky Mountains" Mitten says of his Cynodontium Canadense. In color and appearance like a small state of C squarrosum (Dicranum) Schrad. Stems two or three lines high seta about half an inch long or more and differ from those of C squarrosum in the more subulate narrower points and Sovulate margins – My three are none such in my set – I will look into the Short set in Sullivant's Hubarium when I go up to the Botanic Garden Hort –

Cumfy lopas densus. I send my mounted specimen which Mr Lansing had put up & labelled – this came into my hands by the purchase of his Moss – I have no duplicate

notwithstanding I had collected it – You will note in the packet that I think you may consider it a var. of Dic. longifolium – I believe I never put it under the microscope until today.

I send Trematodon longicollis collected by me in Penn^a – I send also Austin's specimen – which settles its Northern habitat at least as far N. as New Jersy.

Dicranum curvatum I have closely examined my specimens and feel tolerably ~~sure~~ sure of it – I send Spec^n. I do not find memorandum of D. curvatum being sent to you

Cynodontium Canadense see above –

Dicranum crispum is the specimen under 101 of the Drummond set – where it is so named by Hooker as D. crispum and neither Wilson or Schimper have made remarks upon that No. (no 101) I therefore infer they found it right – I have looked at it carefully and ~~believe~~ I consider it – it is Dic. crispum true – It is the only plant found or that I can find for this country –

D. brevifolium – there is none of this as yet been found in this country.

D. majus – I send a stem of the Blair Co Specimen from my mounted ~~specimen~~ plant (all of it was mounted)

Also sp. of my mounted Alaska (Sitka) collected by Burkett and sent to me by Dr Rothrock

Mr Jno Wolf has recently sent me some very interesting mosses besides the Astomum nitidum – One is, Discelium nudum – which now makes the third locality for this species – The Park Specimen South Lake N.Y. – at Bethlehem Penn^a by Raw where it grows abundantly – and now at Canton Illinois by Wolf –

A Weisia sp nov. a peculiar plant – specimens sent – plant

A ~~sagittaria~~ which resembles ~~the splendens~~ Amsidon pulpusillus – may be you can tell what it is – The frame of the leaf in Br & Sch of Amsidon pulpusillus looks very much like the leaf of this plant –

gentleman has been remarkably successful in collecting varieties. He is highly elated with his success.

I have copied the whole of the balance of the citations of Wilson & Schimper, & the Drummond mosses and enclose

Wishing you the compliments of the season I bid you good night

Thos. P. James

Cambridge Decem 27 1875

L. Sieguenard Esq

My dear Sir –

I called on Dr Gray upon receiving your letter of the 23d and handed him the letter and had him read your remarks upon the points you wished discussed – Dr G asked me how we were progressing with the preparation of the Manual – I told him we were getting the work partially under way – He said that as soon as we would have the Manual in readiness or approaching it, he would secure a publisher and would insure that a Book-seller would bring out the Manual without any cost to us whatever, and that eventually we might to expect to realize from its sale. He repeated that it would be at no expence and should be perinted

As to Austin he says he cannot possibly publish a manual of Mosses Dr Gray has several times told him that sufficient insisted that you should prepare and publish the Manual of Mosses He at once wrote to Austin telling that we were progressing with the work of the Manual and he would soon announce that the Manual would be published by us – He asked him if he was willing to prepare a manual of Hepaticæ and if so we were

willing that it should come out with our manual and be bound with our in one book Dr Gray wished him to inform him and what number of pages it would embrace, requesting him not to have too large - but furnish the information - Dr asked a prompt reply Dr Gray assures me that Austin could not publish a manual and he was of an opinion that he would gladly join in publishing the Hepatica in some volume

Dr Gray seems so sanguine that I am inclined to think it will all come out right, Austin's reply to Dr Gray will show his hand

I return your packet of Cunfylopsis dur sas I placed an example under the microscope the characters are evident and I find as I thought that our specimen was not that sp but Dia longifolium

The small Dicranum squarrosum which I put into the Drummond packet of Dicranums Crispum was a British specimen from Brough and not belonging to the Drummond specimen I sent it to show that there could not be any of that sp. with Drummond I found only few stems of a Bryum - so you of course cannot report Cynodontium Canadense Mitt as found by Drummond under "Fide Mitten".

I have this P.M. very carefully examined the Weisia mucronata = mucronulata - and after long search I detected some plants several together and not stems attached to fertile plants but separate and distinct so that it is therefore and cannot be W. mucronata - but a new species I have pencilled out the analysis so that you can determine it - I have not a great stock of it will write to Mr Wolf for more but fear I will not be furnished as I have as yet been unable to get from him duplicate supplies of any I asked for

I add a specimen of Physomitrium pyriforme with an unusual and truncated capsule also one of Physomitrium latifolium? from this seems distinct from pyriforme - They are from Central Iowa came in a very large lot of the common Musci from Prof Bessey last week -

I have the lot of Colorado Mosses from Rev = Brundage which Austin has recently had and out of which he has made several new species one of which is the Weisia viridula as he call it Gymnostomum Brundgee the only difference is the leaves are shorter and broader - another Grimmia Brundgei - and Grimmia Raui etc etc I have not had time to look through the large lot - have only tried a few - I should not be surprised that some may be new

I have just received another consignment for Mr Wolf for Illinois this

94 94.

Cambridge Jan 5 1876

V. Vesquereux Esq
My dear Sir

Your favor of the 28th ult to with endorsed came the day that I mailed a package to you containing the set of Hall's Oregon Musci & some of Macoun's specimens which I doubt not is received

I now enclose you two sketches of those returned which I hope will be satisfactory on the points needed —

— Cryphaea st Lisa Austini Illinois Hall 1868

The four cauline leaves show the areolation roundish or somewhat oval at the upper part of the leaf and becoming a trifling more oblong in the middle and smaller and near the base still smaller and more roundish — at the basal angle a row of compact round or nearly square cells — the point of the leaf is indistinctly serrate and in most of the old leaves hyaline in one considerably down the leaf, this may be the effect of age yet I could see in some of the young branch leaves the cells at the very apex transparent The smaller leaves of the branches were the same shape as the stem leaves — I gave you Mitten's diagnosis of his C. tenella as the nearest I could find in his S.A. musci I knew the nerve was too short — I do not know what seta oblata is, more than yourself our plant has a row of flattened roundish cells. — You will find the pinnacular leaves of the first printing specimen on the back of the same, that has the stem leaves, they are all nervelessly slightly very slightly plicate — the cells longer than the stem leaves, narrow oblong there were & perhaps more the smaller I did not draw this I skeleted with leaves under a film of glass & may have flattened them and therefore no convolutions seen — I took another and younger specimen which I drew on a separate paper and have pasted it to the first the sketch shows it before taking off the leaves — I removed the leaves and skeleted without the film of glass and the leaves were concave some, but not convolute these pinnacles are on the back of that slip of paper

I had drawn a male gemma in a leaf axil which I left there it is marked with prominent papillae — The leaves show feeble papillae on under surface
I was fully aware that Mitten's diagnosis would not suit our plant but it was the nearest, and thinking maybe Mitten too hastily described this plant

I am sorry a developed fruiting organ is not to be had — Mr Hall promises to send me his other collections, — among which he mentions his Illinois Mosses, may be this plant will turn up

— Sporrhopodon (or Trichostomum flavo-viridum) — Enterprise Florida
D.B. Smith 1860

Of this I have made sketch on a larger sheet — You will observe how the leaves are curled up or crisped when dry — The capsule is in no specimen entirely straight but curved more or less, you will find specimens so in the inner paper, the length of the operculum varies some; the peristome had a basal membrane — the calyptra is not striate although it clasped the stem below the capsule, and is therefore not a ~~Calyptraceas~~ Calyptreres — C. Muller II p. 620 gives "Calyp. thecam totam includens, latere fissa persistens plicato, demidiata: Pseudo-mitrium"
I have tried to make the a relation of the different portions of the leaf — The whole sketch is drawn under the same power that I have used in my camera lucida
You may keep the plants sent — The sporrhopodon & the Cryphaea —

I am examining Hall's Texas (not Florida as wrote in my last). Have made sketches of his two new Brachiae by Austin named — I will continue at these (Hall's) until it proves too slow. So I will not take up the Enumeration just now kind from you now —

Prof Agassiz is yet in Cambridge and my family have understood that he has declined the offer from Europe — The last time I saw him he had not then decided — I will see him soon & if he intends to return homeward I will write you.
It is very cold yesterday at York (the thermometer was 0 zero) to day 2° above
Truly your old friend Thos P. Lanman

Barbula insularis ??
Big Trees California

Barbula rubiginosa Mitt

Barbula Crugeri Sond
St James Parish on old walls Mississippi
Dec 1887 0

Barbula Rauii Austin

Barbula papillosa Wils

The B. papillosa Wils has been found in fruiting state in Victoria & Australia and fully described & figured. See if you wish it I will copy the whole diagnosis for you to describe it fully.

I have not seen your paper No 50 & 51? no. gymnost. what is this? of which I have made a sketch – it is a Barbula and not a Trichostomum dicranum –

Barbula inclinata with a sketch which I submit for your determination there are so few capsules that I would not call one to look for another – so little of it that we probably had better pass it by

Barbula collected by Douglas with a sketch which I had made and was satisfied that it was a Gymnostomum and about to pronounce it an undescribed species when (after making the sketch) I opened Mitten's list of Mexican Mosses and saw and read his Barbula rubiginosa which I suppose is intended for this plant. I found this plant in Sullivan's herbarium with nothing more on it or about it and brought it home to examine and set to work to make it out. I send the original packet for your recognition. Taking out most of the specimens for fear our letter and contents may be lost please return the same and I will put all I have taken out back and return to the Herbarium

I have sketched another Barbula No. but on the collectors name and date etc is omitted I have written to Rau for them when I will submit it to you

I have another from Santa Barbara which I take to be B. viridula but have no specimen to compare can you loan me a specimen

The Barbula rigidula Philibert is right & fully believe but if you prefer I will sketch it.

The Barbula atrovirens I will sketch and send in my next

Also another for your inspection

I will take up the Weisia Sp. next – may be I can find a specimen – I wrote to Wolf for his duplicate but he died and understand no one has not out it I have just received several from him and will refer to my report

I will look over Bridel with the Physcomitr.

I did not keep a specimen of Cinclidotus because the Stein that took for the microscopic examination only I kept –

Cambridge Jany 12. 1896

S. Lesquereux Esq
My dear Sir

On receiving yours of Saturday I posted up to Gray and he put into my hands a letter he had just rec'd from Austin

I copy the first portion viz. –
"Thanks for your kind wishes"
"Glad to hear that the Manual of Mosses is – getting along towards completion It will supply one of my own greatest needs in the study of the Mosses." – – –
"I have done nothing with the Hepaticae and

since last winter for the reason that I got them in a quandary about the proper nomenclature"

"I think that the Musci & Hepaticae manuals should be got up in separate works, but for the convenience they should be bound together"

"Your friend and part of the plan is satisfactory"

Dr Gray says he knows that Austin does not intend to publish a manual of Mosses he has told Austin more than once that you are to get out the Manual of Musci and that Austin has no idea of meddling with the matter –

From his letter I would decidedly infer that he will not publish the Musci but would be pleased that you are about getting it out – and that it has so far progressed in your hands

He is puzzled, whose system of nomenclature and arrangement of the Hepaticae to follow every author has a plan which he pronounces erroneous

I am satisfied that Austin will not interfere in the least in the matter

"Barbula squarrosa Dr Notaris
Hab. Swamp by plank cedar ~~swamp~~ Occus 1/4 mile south of Lebanon Lebanon Co Penn
Gray 1849 C Wright" Vid Sullivant Hedwigia

Barbula cuneifolia
Clay soil Oakland California (Bolander)

Barbula subulata Ard
Rocky Mountains (Hall) California (Bigelow)
Big Tree Grove California (Bolander)
Utah (Watson)

"Barbula marginata B.S. California (Bigelow)" – Sullivant

Barbula muralis
Colley Hill Easton Pa "White house" Washington Norfolk Va etc etc
Vera Cruz – Stone wall near Lodi NJ (Austin)

Barbula macrofolia
Watkins Glen New York dripping rocks (Rau)
St Paul Minnesota (Sapham) etc

Barbula hoviifolia B.S.
Nevada (Watson) Vancouver Isl (Lyall)

B. Pallidifolia Sullivant Hedwigia California

Barbula muralis Hedw
Rocky Mts (Hall) – Sacramento Calif – Yo Semite Valley (James) Vancouver Island (Lyall) Narrowsville Penn – Easton Penn – Hoboken N.J.

Barbula Müllerii California – Auburn Calif Alaska (Kellogg) Portland Oregon (Howes) Nevada (Watson)

Barbula brevipes Lesq
Nevada (Watson)

Barbula amplexa Lesq
California (Lesquereux + mss)

Barbula flexifolia Hampe
California (Lesq + mss)

Barbula Belandrei Lesq
California (Lesq mss)

Cambridge Feb 7th 1876

L. Lesquereux Esq

My dear Sir

Your favor favor de of the 29th ult to come to me on Saturday – I went up to the Bot Garden to consult Dr Gray but he was absent has been making his annual visit to Prof Henry at Washington will be home soon if not to day – I will go again to see him then I will write I looked over a number of specimens – whilst there and will make remarks when I return the paper "American Species of Mosses" ~~with~~ You begin this with Sphagnum when to your purpose bringing in the Andraeas and Sphagna? –

Now as you are examining the Bahama notes sent to you I have thought it best to send some that I have worked at since I sent the last – viz

Barbulae marginatae etc which I have sketched – The B muralis from Easton Pa which you had doubts might be this sp

and which I think is clearly B. muralis
see sketch —

Another which I had from Austin as
B. marginata is also B. muralis
see sketch the wedge not reversed margin
etc. I think includes it

Barbula from the walls of house ~~which~~ which
I collected in Norfolk Va does seem
on sections of the leaf, and the dorsal inflexion etc.
more like B. marginata, if not it —

Also B. which I got on the walls around
the President's mansion Washington is
much the same if not

Barbula which I have from you marked
B. marginata Bot. San Francisco Bol. very little
is surely B. muralis

Barbula of which I got a few stems at the
Sell. Bot. marked "Barbula marginata"
California Bigelow"
has much the characters of B. marginata
inclined to think is such see sketch —

I have sketched from British specimens
which I have from Kent and one from
Nelson of the true B. marginata

I obtained in "Manipulus Mus. nov. et Am. sept.
auct. Carolo Muller" which you sent me and which
was not published in the Bulletin Bot. Club viz:
4 Barbula (Senophyllum) purpurea C. Mull. N. S.
and ~~B. brachyphylla~~ B. brachyphylla Sull & Sey
in. Amer Bot 48 No 135 4 parte, specimen
breviseta purpurascentem forsan ab. N. Bolander
collecta with some fruiting specimens — Have you any knowledge of this

Pocketomania continued

I find in Sells herbarium this
"Pocketomania circumcalatum? or
Pedicetomania Barbula ??" . . . 90
Two sketches my full analyses. (Finely done)

One marked
Division - 778.
Apl. 4/59

Male flower only found
on a different stem from the
female still it may be the
same species for ??

A paper in pencil thus
These specimens appear to me better and the
characters assigned to P. circumcalatum . . .

I send also Lencolryn

One recently received from Dr. Edw. Palmer
from Guadalupe Island which seems to
be L. creticum by comparison with specimens
of that species from Sp. Ancin

I send the other two from your instructions

I have no L. sedifornie from comparison
but the one from Dr Palmer differs from
any thing I have.

You will find date of my last letter
at the end of the letter

In great haste
I remain most truly yours
Thos. P. Jones

Page No 50 — I cannot tell the number of pages sent to you so I begin now with numbers by page 50

Cambridge Feby 10 1876

J Leguerey Esq

My dear Sir

As I shall see Dr Gray soon - and I am going over the ~~list~~ enumeration which you sent me - very carefully & examining every point which absorb much time and when through will send the results to you I therefore have determined to reserve ~~all~~ my entire remarks on these ~~papers~~ (~~list~~) the enumeration ~~until~~ until this done ~~In the meantime~~ In the meantime & as you are on the Pesidens I send some material for you to examine

Pesidens

Fundum deiciens - Do not which Sol Lendy says "Pesidens deiciens Do not
Northerly America by Drummond
I found this shrub also from Canada

I find in Sull ~~Well~~ a pencil note in this shrub which I send & which please return a beautiful sketch of it is in Hort but too large to send

---

No 88 - on this paper is this remark just published in the appendix of the separate edition of the Mus & Hepat 2 Boys Man

Pesidens hypoicus Sull
San Marcos Texas
Dr Ch Wright 1849

303 I send your diagnosis found in the packet marked #303 which is endorsed "No 303 Fendler — ?
1856 June 21 406 San Marcos Texas
406 Fendler ? — send your diagnosis also
D C Wright 1849
"Rhus monilatus Gull. Var May a possibly Fenicuous Prof Gray examine —
San Marcos Texas D C Wright 1849

302 I have looked into this packet you designed and find plants which much resemble Fenicuous. Had if I had come to me for naming I should have called them Fenicuous — I found some plants have that your monoicus which would be probably P. hypoides — If you wish it I will re-examine them

Pottia

I send examples of —
Anacalypta latifolia
Bear River canon Utah Watson
& a little sketch which I have found — I have very little of it

Pottia which seems intermediate between Semilis & crinita if not crinita itself — for & a sketch with it Valley of the Platte 1862
Lieut Hall

Pottia truncata var subcylindrica
Carson City Nevada
Watson

I have other Pottias which have been drawn green = Anacalypta Starkeana — Pottia Mamii P. truncata P. cuspidata

By the by I refer you to the Bulletin Torr Club vol VI No 6 p 42 for perusal and action of Austin's & Pottia Pharomitrium exiguum N.S. If you have suggestions to make in this paper let me have them —

Pottia Wilsoni which I made out satisfactorily from a very small specimen in the Watson & Nevada collection and which I somehow omitted to report but which Sullivant admitted I believe — and as I cannot find a specimen among my plants I shall have to pass it — unless it turns up yet

Pottia cuspidata from Shasta
near Carson City Nevada
Watson
This specimen I have from Colorado and elsewhere in the western section

Anacalypta Starkeana
Uintah Mts Utah
Watson

Desmatodon

Desmatodon latifolius var B obtusifolius
Echo Canon Utah
Watson
This specimen var. has been found also by Drummond at Lake Winnipeg

Desmatodon cernuus
Ruby Valley Nevada
also found by Drummond
Watson

P. 53 I call your attention especially to the Torrey Bulletin vol VI No 6 page 42 to Austin's
Pottia Pharomitrium exiguum N.S.

I confidence to examine the plants reported in your enumeration

You may safely keep the Sullivant correspondence on the Pocketsmate as long as you wish

Yours truly
Jno. P. Sanford

57

and further if I find it will sketch it

Prickaden Olongus Austin of this he remarks its nearest ally is Prickstemmon tortile – he makes many differences between them but I have no doubt that it is an var. of P. tortile

B. Cruciferandum Mull syn VI p. 618 see Bull. Bot. Club Vol V. No 12 page 57 under The following tropical species heretofore not observed in U.S. have been found by me with Gulf Region

B. Cruciferandum

Prickstemmon macrostigma Gall

Menicum (Rhizogonium) Seminforme

Rhacopilum tomentosum Brid

Very truly Your

Thos. P. James

P. 54 – Cambridge July 22d 1876

L. Lesquereux Esq

My dear Sir

Page 1 of the enumeration – I decidedly think the plan of giving the name of the author who establishes the genus to the genus and the specific to the party who originally described the species in the form

3. Mr Sullivant James – Sull. Icon. Musc. etc – Dr Gray thinks otherwise and that we can quote the work when the species was originally published – and he thinks we ought give enough of the description of the species to make the diagnosis fully explicit, as some of Sullivant's are almost too concise – he says we may expand to any extent we think fit – that we are not restricted to a limited extent as Sullivant was in the Gray Manual

Whether we can affix the time of the maturing of the plants in all cases can be given as I do not find ~~hardly~~ the dates of collection on Sullivant's and others stated on the packet etc – so if we cannot carry out the plan and give only to those of our own collecting and not on others, but if you can see our way clear to furnish the dates it would add greatly to the value of our synopsis –

I return the Manifs Musc. Scand. by Lindberg and call your attention to page 408 – concerning Micromitrium – where it is stated that Sprucé had given the term to ~~another~~ genus published in Musc. Amaz – a work I cannot find here and that Mitten applied the term to a subgenus – Now Mitten does not allude to the name of Micromitrium by Sprucé and he could surely not be ignorant of this so that he may have ignored Sprucé's naming

The substitute by Lindberg Nanomitrium seems appropriate for the genus – What do you think of this matter

Note. Eschenerum serratum I collected in fine condition and abundantly under shrubbery in Belan's garden of which I sent specimens to you some time since & sent specimens to Schimper – Austin also found it very sparingly at Chester so that the species has been found on this side of the Rocky Mountains

P. 55/
No 6. For Espinetonum I refer you to Jaegers Man. Christ page 43

~~I send sketches of the species named for your inspection and determination~~

19. P. stramineum I send a specimen on this sheet from Sull: herbarium which please return — I have not made a sketch of this thinking the plant may be revived in your recollection by this paper sent but if you wish me I will sketch it —

19b — I think it doubtfully from Penna — ~~but~~ as it has not turned up in the state but as we quote it from Drummond it must be given — —

21. to 33 I send sketches of Brachine for your consideration and Jaegers pamphlet — which you can keep for some time or until fully satisfied with the species described in it

35 — S. Drummondii sullivant cancelled this name — It is undoubtedly S. Ludovicianum Sull

39 S. pygmaeum — If you wish I will sketch — —

41 S. lemnis — I could not find an open ovate capsule in any of the three sets of Drummond to determine or see the annulus and find out whether a Gymnostomum but I infer it has been made out — use your own judgement about placing it under Gymnostomum —

46. N. viridula — vare gymnostoma would cover the fact that S. Ravenna is a gymnostome —

56 D. pellucidum — specimens from Walkum & Drummond have dangerous leaves

57 If the genus Dichodontium is retained would Mitten's new species C. canadense be embraced by the diagnosis establishing that genus? — May be it would be better to omit the Dichodontium I have looked into all the Duriana for P. canadense ~~I cannot~~ find a scrap —

63 I cannot find D. squarrosa in any of the packets of Drummond notwithstanding C. Müller mentions it as of North America —

74 D. Sieckianum as of Boston locality ought to be omitted

92. Dicranodontium longirostre — I have carefully compared the specimen from No. 90 Hundert 2d ed with two foreign specimens ~~in leaf~~ in the leaves as all were barren & it compared so well that I think it identical I have made a rude sketch —

99 I have no specimen of Cuberoasta to look into —

100. I will try to get time to compare etc this with the C Hallii and add before mailing

Page 57.

In reply to yours of the 16th Feby — I had sketched the Anacalypta latifolia before I had observed that the species was among Downing etc — I thought I would send it — although you did not ask for it

The Potter's subfusilis has slight serratures on some of the leaves the younger or uppermost ones on the same plant — most of the leaves are entire the specimens from the Hills of the Platte (Hall) and Prof Bigelow had no serratures see sketches

I send sketch of Barbula Ravenii

The Barbula marginata Norfolk Massachusetts ~~I have~~ I especially observed the thinness of the texture of the leaves and in ~~sketching~~ the dissecting and in sketching carelessly made the leaves too thick — I have examined the returned Norfolk specimen & found it was not Desmatodon planifolius but a Barbula with a proper peristome and also a thickened margin — I am satisfied that the Barbula from Norfolk is truly B. marginata

Barbula pulvinata Mull I have casually looked into my packets of B bracelyphylla for this species but did not find any that I thought the N. Sp will look again

58

Cambridge Feby 26th 1876

L. Lesquereux Esq

My dear Sir —

Your favor of 24th inst. came this morning just as I was going into Boston — And this P.M. I called on Mr Gray and gave him your letter to read. —

He said he would write to you upon the subject of inquiry — But told me that the Hepaticæ or portions of them had been sent to Austin from Taylor's Collection in the Herbarium (his herbarium) but he said he would write to Austin to return them he had —

I infer you will get a letter from him

I have examined your specimen of Artemisia Drummondii Gall. Florida Chapman and have made a hasty sketch of it — and of specimens from Drummond's Southern Mapes and another from Florida by Chapman — this appears to be a more fruitful plant — otherwise identical — I have copied Mr Sullivant's remarks from the back of a pen & ink sketch made

it appears by a pencil marking in one corner = Examined April 1853 WSS.
Over the specific names of Drummondii scratched off and in pencil written Leedsianum which no doubt was done some time after

I noticed some of the other packet but it became too dark to see the characters of the plants so I put them off until Monday morning – I could only outline the cirrus of Ch. crassinervium and of Bouchia breviper not brevifolia – however I will note what I see on Monday –

I would like to look over a series of Hall's Oregon plants –

I have to revise Rothrock's Colorado collection for Lieut Wheeler and at every leisure moment I work at them Wolf & Rau have sent a few for naming

I have a specimen of Tortula Crügeri sent by Spruce's American Collection and could compare with the specimen from Mohr collected in the Gulph States I have a specimen also collected by Wright in Cuba –

Pottia subsessilis – In my report on the Spains I made a mistake in writing P. crinita when I should have written P. cavifolia variety alind Hall's specimen as intermediate between P. subsessilis & P. crinita the mistake occurred by my noting P. crinita at the bottom of the plate in B & S. whereas the P. cavifolia was under that P. cavifolia half way down the plate However the P. cavifolia is figured with 2 lamellae whereas our (Hall) plant has 4 lamellae – I call your attention to this that you may turn to the plate in B & S. and observe the otherwise resemblance to Hall's specimen it was as having two lamellae that I suggested it to be intermediate

01

Grimmia alpestris? Bear near Canon Watson

Schistidium pulvinatum 20 of Sonnenwald set is Grimmia. Hoffmanni see C Mal - I have not examined this or sketched it but will do so -

I find at Bell. Herbarium packets marked Grimmia California Bigelow not examined Grimmia California Dr Lemmonii Bigelow 1859 and 3 packets marked Racomitrium Oregon collected by Douglass none of these have been looked into yet I got them only yesterday -

I add Weisia Brandegei Colorado
See Bull. Tor. Club VVI p45. Dr Brandegei

P. 62

Cambridge Mar. 18th 1876

L Lesquereux

My dear Sir,

I took up the packet you sent me yesterday - it is marked Heat No 1 Sphaerium crassinervium? - leaves very papillose with Brachia brevifolia - (no locality no collector) The Brachia is brevipes - no doubt - it has all the characters - the anthéridia are found naked in the axils of upper leaves and also on a short branch from the base of the plant -

The Sphaerium is S papillosum Aust - I believe not only on the leaves but the calyptra are very papillose as figured in Sonne - I find most of the Sp. crassinervium have partially papillose calyptras but this plant much so. -

I continued yesterday at the Brachia and enclose my work in 3rd packet - I went to the Bell Herb. and got Schwaegrichen description of B. Beyrichiana (Hdwig Spec. Musc. frond.) and and observe that the inflorescence is not mentioned the "calyptra capsulae longitudine, campanulata" "Seiseta Phaeo brevipedicellata ... calyptra campanulata totam capsulam obtegente, diversum"
"Habitat America boreali a D Schweinitzio lectum dedit D Arnott: Sporiferum a Beyrichio Baltimorae lectum E Hampe habet"

Finding in Herbar. specimens from Hampe of Beyrich Baltimore & Sp. from Herb Schweinitz - I brought them home and have sketched them & enclose — Of the Schweinitz sp. I had copied Mr Sullivant's remarks written ~~about it~~ ~~[illegible]~~ last ~~or rather~~ on the ~~sketch of Beyrichiana~~ which refer to I have sketched the Burlington specimen and brevifolia for your investigation

With regard to the Gymnorh. Racaunum Aust. I observe that there are a number of Gymnostomaceous Weissias and it may be that the W. Racaunum has been described — I have not had time to read the following and compare them with Austin's diagnosis — viz W. Brentelii C. Müll Syn. 1. 664. W. Kunzeana — C. Müll Syn 1. 656. — W. Senocarpa C. Müll Syn II. 632. — A remark under W. Kunzeana — "A W. viridula simillima theca gymnostoma differt" — There are other Gymnostomous Weissias — W. micacea Schleicht Linnea x 443 — W. Jamesoni Am. in Trans. Wm Soc V. 200 — which may not be accessible to you — There are many gymnostomous Weissias in the Spruce x Andian set of Mosses —

You can compare Austin's diagnosis with some of these and determine the species

Very truly yours

Thos P James

V 64

Cambridge March 8. 1871

L. Lesquereux Esq

My dear Sir

I have taken up the Grimmias and for several days have been working at them and now send you my results —

Coscinodon pulvinatus from Alaska — you will see by the sketch and specimen that there is no doubt of it —

Coscinodon pulvinatus? Rocky Castle Mt Col 1869 C. H. Peck leg
this is not that species but some Grimmia — I have just sketched it have not found its likeness yet I got it yesterday at Sull's herbarium — it is a Grimmia

Grimmia platyphylla Mitt described in Jour Linn Soc by Mitten on Mss of the late "Par:

On a fine sketch in Sull's Herbar: of it is this remark "Sketch made from Specimens by Schimperium & Gar-"nizii of S & G. may Exs the supposed species proves on "close examination to be nothing but a variety of Schis "tidium apocarpum Hedw 1800 V. 55"

Grimmia ? from Alaska.

Grimmia Brandegei Austin I could find nothing but G. anodon in the specimen from Rose Island have to apply to Austin first

Grimmia (Coscinodon) Pacei Austin — Bull Torr. Club

Grimmia Jamesii Austin — Bull Torr. Club

Grimmia brachydon Austin — Bull Torr. Club

Grimmia Nevii Ohal — see Bull Torr. Club

Grimmia anodon Nevada water

Grimmia anodon St John New Brunswick N.D.

Grimmia montana Nevada Nation

Grimmia patens White Mts Gap N.H. S.P.O. Wright

Grimmia elongata Bear Creek Mts Gap N.H. Wright

Grimmia elongata Yosemite Valley Dr B.W. James

Grimmia unicolor Bear mon Gap N.H.

(68)

Cambridge March 1876

Leo Lesquereux Esq

My dear Sir

I now send a few more of Grimmiae

Grimmia (Schistidium) Confertum ?? Humboldt Mts Nevada Walker

Schistidium — N Hamboldt Mts estate Walker

Grimmia elongata — Chappman fully Wisconsin Lapham

Grimmia — ? — Monitor alpine Co Calif Apl 1870 Lapham
No 1

Grimmia — — " " "
No 2

Grimmia Hoffmanni ? — 200 Drummond N Ala sol

Grimmia patens 131 Drummond
This is true G patens

115 Fissidens Tosanus Sp N Sp nov — 200 400
I have sketched this and you will please make the diagnosis.
I don't sketch Mr or 1876

116 Fondens Algovarcus De Solms
I have sketched this also —
Where is this species described — I may find some work in Sull (Library) attached where this is described —

121 Fissidens decipiens De Not I do not find a specimen from Chico of this specific name
I found one packet marked
"Fissidens decipiens De Not
Mothly American
by Drummond
I possess the species direct from Canada"
Where is Fdecipiens described? —

P. 64

Cambridge March 8. 1876

L. Lesquereux Esq

My dear Sir —

Thinking it best I have taken up the Grimmiae and for several days have been working at them and now send you my work

I wish to Sull. Hubanii yesterday to look over the genus — I found this remark by Sull. on a sketch — "Sketch made from specimen 137 Schistidium Agassizii of S & S. Mus Ex. — the supposed species proves on close examination to be nothing but a variety of Schistidium apocarpum Bot 1860 W S S."

Grimmia (Schistidium) — ? Sandwiche Islands
the capsule etc resembles S. maritimum but the leaves are piliferous & of a chestnut-brown color

Grimmia pilosa phyllo — Mitt Cal. Colorado Rothrock
vide Mss 149 ex pond by Mutter Jun Lin Soc

G. contigua found in other localities than Santa Fé

Grimmia Brundgii Austin I could not find this species in the packet sent to me by Mr Rau there were specs of G. anodon which I send I will send to Austin for his specimen

Grimmia (Cyrtodon) Rauii Aust. Colorado Bot Cl Watson's plant is not G. enbon & Brundgii by an C. information

Specimen Jamesii Aust Mount Watson Bal Bot Club v 7 p. 43

Grimmia brachydon Aust S & S Mus Ex. p 215 Bal Bot Club I got it from the packet 215

Grimmia alpestris ?? Nevada Walker

Grimmia anodon Nevada Water

Grimmia anodon sp John M. Brewer

Grimmia ~~anodon~~ meantime can't find my skeleto will make another if you wish

Grimmia patens W. Mt. N.H. J. D. L. too small in comparison with proper

Grimmia elongata clear Creek Canon Nevada water

Grimmia elongata Yo Semite D. N. W. January

Grimmia unicolor Bear river Geo. N.H. J.D. with another sp

Grimmia Hoii Elk Oregon Dr Howes

I have specimens of
Grimmia trichophylla to examine & sketch
Gran which I will look into & several others, &c.
and
Grimmia California California Bigelow 1859
Grimmia California rivularis — " "
Sr Sell. Hall

I have in my herbarium
Grimmia leucophaea Andover Mass — Brandywine Delaware — Catskill N.Y.

Grimmia Olneyi Winchikon Phil. Chester Co & Easton Pa.

Grimmia trichophylla Rocky Mt. Hall Sandwich Isle Island off Calif Palmer

Grimmia Pennsylvanica Rocky Dry common

Grimmia Donniana Mt Washington N.H. J.D.L.

Grimmia cobsplicata Rock Mt. Hall Nevada

Grimmia hamulosa Vol Kauai Islands

Grimmia ovata Rocky Mts Hall Nevada Water

Grimmia pulvinata Rocky Russian Dividal Bol

Coscinodon

Coscinodon pulvinatus I think includes Doris, Spanish Romans all the characters of the forgn sp

"Coscinodon pulvinatus? Rocky Catskill C.H. Peck is from Sull. Habana it is not C. pulvinatus but some Grimmia —

I add. Weisia Brundegei Austin Colorado Dr Brandegee Rand

In Drummondy N. Am. Bol
No 20 Gymnostomum pulvinatum Hedw
I find in C. Mus Syn. L.P. 1780 in Grimmia Hoffm
Mossi in Canada Sabin
Syn. Schistidi pulvinatum Brid Gymnostomum pulvinatum Hoffm note & pulv. Hedw. Hoffm above in the last Gym. pulv. Hoffm
I will try my specimens & see what I can make of it

I put off going through the last enumeration and took up the Grimmia as you expected much trouble in clear genus

I have a few more packets of Grimmia to look into and if any requires it I will sketch and send for your inspection —

P. 72 + 73. Cambridge April 1. 1876

L. Lesquereux Esq

My dear Sir

I have been examining Mr Holly's assignment of Musci which he in his letter says are from Oregon but I think some are from further south — He gives no locality or time of collection on a single packet he simply numbers them. There are a great number Hypnaceae — I have taken up the genera that we have passed over in our Enumeration and now send you such as are interesting & new that you may examine them whilst the genera & species are fresh in your memory viz

Ephemerum ciliatum & Physcomitrium

No 25 Acotea — This differs much from Fabbella but whether enough so as to make a new sp. must be determined —

60 B. Pichisteomum? has a Entodon fruiting but crowded leaves when dry and a Barbula aspect

V. Barbula revolutus? I do not cannot think it that yet

60 A. Barbula — ? differs considerably from Barbula what species?

114 Entodon sp nov.

I have a number of this fruiting under cover of investigation — will send results when through

Among those examined the following in Austin's plants have occurred

67 Pleurodicium albicifolium —

Decorana referring to Leucobryum separum

36 Pichisteomum looks quite interesting

64 Rosulina rutilicornis fine specimen

Blindia acuta Barbula latifolia varietas

Tortula 3. Anomodon rostratus & Hallii

P. 69 Trichodon oblongus n.s. Austin

I found this in the parcel among several of Austin's N.S. which he had sent to Mr S. the parcel was given to me by Dr Gray — so that I have the plant and have sketched it — You can now compare it with Austin's last in the Bulletin Torr. Club ~~Sept~~ vol VI No 14 Feb 1876 p 1

Trichostomum (Trichodon) nodulosum — You will observe that this sp is Trichodon oblongus n.s. etc — I regret that ~~it~~ not a good specimen or perichaetate plant in the parcel — and the number of plants so limited —

The sp Trichodon? Rauei n.s. seems based on so very feeble materials that nothing but the strongest desire of making new species ~~with~~ which seems to possess Austin could cause him to publish such a plant —

Must I send for a specimen or may it not pass sub silentio? —

Phascum subsessile —

I have sketched the only two plants that I had of this plant (I could not find a plant in Sull. Hub.) — You will observe that I did detect a leaf or more with very feeble serratures which may settle the point — you can compare the sketches which I had made of the American plants now in your hands with these now sent.

The next plant in order is No 154 Didymodon cylindricus which I will take up

I have thought best to send now what I have ready

Very truly Yours

Thos. P. James

P. 79

Cambridge March 25. 1876

L. Lesquereux Esq

My dear Sir

I now return the Enumeration with notes on different parts of it that you may examine them whilst the genera and species referred to are fresh in your memory and that you may add in their proper places the several plants entered on it on the pages of the enumeration that none may be omitted at the closing up — You will compare the sketches now sent with them diagnoses and determine them —

I send Sketches of —

Symnotomum Clintonii Austin a new species published in the Bulletin of the Torr. Club &c vol VI page 42 —

Mnium reflexum recently received from Belt Shin to Mass. please compare with B & S. and determine and if satisfactory enter it on Enumeration

Trichostomum Modulosum Austin N. S. published in Bull. Torr. Club of February last which compare with diagnosis & determine this sketch as you "dont know this if not some old form of Trich. glaucum it is a new species"

Dicranum modon cylindricum this is right. I add specimens from different localities to show the variety in size —

At page 314 of the Enumeration you ask me to refer to Mus. Calif in Belt-Jet — and mark or pass what work it is separated — I do not find the Bel-Jet — in herbar: Dr Gray's copy for 1875 in the binders hands & do not find Mus. Calif in any Mus. vol

P. II

Of the Grimmias from Monitor Calif one proved to be Grimmia montana — the other as no perfect peristome, nor any male organs could be found and a more description would not be satisfactory (I may yet find some in other papers from Lapham) I shall pass making a diagnosis for the present —

You seem to infer that as Austin says that his Micromitrium megalosporum is Sphenoloma tenerum that he abandons the name of Micromitrium as a genus for the other species & Synoicum etc. Does Austin really give up the new genus?

I have just received a letter from E Hall covering several Mosses — Bruchia, Fissidens serrata — Octoblepharum and a new Acaulon — also a package somewhat bulky of his undetermined Oregon collection of mosses came this p.m. I will open it on Monday

If you wish any of these specimens which I send for your examination other than such as I have borrowed from Sull: Hal or are all that I have you may keep them provided you send me your notes upon them & if any which you have returned are desired I will keep for you or send to you

I will go on in examining &c and in setting Sull Herb. Yours truly

Thos P Sullivant

78/(25) Orthotrichum. Oregon Hall
I have made a fair sketch of this plant which seems to me to be a new species — the peculiar leaf tooth I had never seen such before

Of Halls Orthotricha I find the following
Orthotrichum Lyellii — pulchellum — sordidum — Hallii rupestre — crispum & the new one

Sullivant — did see Physcomitrium pygmaeum — I sent it to him as decided by a real species giving a short diagnosis suggesting two or three names — Hamilton pusillum etc for him to select from — He for a long time did nothing with it and some other plants — and when he did take it up he seems to have forgotten my suggestion of a name and so named it pygmaeum & wrote out a diagnosis

79 May 4 reply to his letter of May 1.

P. 74

Cambridge April 6 1876

Leo Lesquereux Esq

My dear Sir

I send a number of packets of Mr Halls Oregon set which I submit for determination.

No 59 (Halls No.) Grimmia sp. nov.
44 " Grimmia —
57 " Barbula Belandrei

I have found after close examination the following in Halls set of Oregon Bryi
45.46. Grimmia heterostricha
47 — leucophaea
48 — alpestris
49 — trichophylla
28 Racomitrium sudeticum
29+30+31 heterostichum
27 — microcarpum
32 — microcarpum
33 — Camptoscyphus V. circinnatus
68 Bryum californicum
51 Schistidium apocarpum appendiculatum to S. platyphylla
52 S. apocarpum
67 Pleuridium alternifolium
46 Dicranum congestum 37 & separum
37 — heteromallum
38 — scoparium
64 Fissidens osmundoides
56 Pterogonium gracile
111 & 112 Pleuridium acuta
58 Barbula latifolia good specimen
60 — vinealis
Also Barbula muralis

P. 25

69 Petrophila fulvida
42 Cnemidia Julianna
43 —— Hallianna

I have given you the list of Hall's plants that you may order any of them you would wish to have or examine — I take the list off in this order — there are a great many packets —

I ~~sent~~ sent again ~~the packet~~ the packet No 44 Bukbinkoff for examination as it has proved to be a Barbula —

The Synnestemonum superter? or convolutum? I would like your opinion to which it belongs —

I will make entries on the Enumerator received a few days ago —

Very truly

Yours

Thos P Jones

P 26 ×

I have made another sketch of the Hall's Oregon Ephemerum more accurate also alternately ~~which is a E. Crassinervum~~ view — first the E Crassinervum then the new species then E. crassinervum then the new species — and leaves first 5 on Crassinervum then 5 of the New Sp all drawn under the same power showing the comparative sizes the E crassinervum I selected the finest specimen I could get —

In the same packet I have added a sketch of a plant which I collected about a mile below my house in Philad^a and which I have considered to be E. coherens

~~I could~~ did not find plants of the Grim nia in

P 76

Cambridge May 4.d 1876

Leiguxing Esq

My dear Sir

I report on some of the last Mosses

× No 44 which I thought might be Weisia referred proves to be Barbula convoluta

(51) Hall's ~~colorado~~ Oregon is Barbula Bolanderi — The operculum is obtuse and the membrane is narrow — in my sketch I intended to represent the upper portion of the Capsule under the peristome which you took for a wide membrane —

(V.) — I made another sketch of Barbula (V.) larger in you have marked it "Barbula slatedy ×" under ~~also~~ I have also sketched your foreign Barbula slata? under (~~which I have drawn it below marked~~) you will see by comparing ~~that~~ the two plants differ materially — I rather incline to consider our plant a new species —

(59) ~~Grimmia~~ a Barbula (Oregon Hall) is to all appearance a new Sp I have sketched your plant which you have marked "59 seems to be the same as this" but you will not see and compare it with ~~my~~ the sketch of the Oregon plant that it quite distinct

P 77

Grimmia Jamesii Austin — I have made ~~an~~ another sketch of the G. Jamesii — the peristome is very short ~~stunted~~ peculiar as you will note by the 3 delineations of the peristome, the obtuse operculum — the included pedicel ~~etc etc~~ ~~taken at from t~~ I think it near — certainly not orbicularis and hardly a var of montana —

Grimmia brachydon Austin seems to be a coscinodon the peristome is much ~~longer~~ longer and translucent — I got my specimen from your Mus; but could not get but one good operculate plant — you will observe the characters in the sketch

(34) Grimmia (Rhamnitrum) Mevii — I send a specimen of Hall's Oregon G. which compares somewhat nearly to ~~the~~ my specimen which I received ~~unnamed~~ from Dr Mevius; whether I am right in thus naming my plant and which I had sent to you some time since — Have you a specimen of the true G. Mevii from Dr Mohr? if so I should like to borrow it for comparison & if necessary sketch the spn sent in the back of Hall's plant

Cambridge April 29. 1876

L. Leighton Esq.

My dear Sir

Your favor of the 25th covering Mohr's Mosses came to me two days ago and at a time when I was and had been very busy in putting the volume, directing and getting ready the Proceedings of the American Pomological Society and then mailing the large lot — this work kept me until this noon — I am and have been the Treasurer for more than a quarter of a century.

I sat down to examine the Mosses which prove to be as follows — viz

No 1. Bartramia calcarea

2 Orthotrichum speciosum? the only discrepancy is the ribbed capsule which is delineated in B&S. as almost smooth but in your Mus Exs you admit such ribbed specimens

3. O. Lyellii — this accords with description & figure with this exception that it is pseudo-monoicous instead of dioicous some plants had archegonia in profusion — others sparingly archegonia on the fertile stems

4 Pterogonium gracile!

5 Weisia cirrhata!

No

6. Hypnum obtusifolium?

The leaf of this plant compares well with the sp.n in Drummond Set: in shape are lateral etc. but they are (the leaves) less crowded by imbricated on the stem the Drummond plant is subsalacous in aspect – but plant does not present so compact a form – I have and to bound it from 20 or more localities from California my plants resemble more the Drummond plant all are more robust than the Drum. I sent specimen to Sullivant – he reported as new but did not suggest its name –

If it is not H. obtusifolium then it is new – Regret it is not fertile – never found other organs on all I have examined –

— Bruchia Ravenelii! — It has the characteristic papillose calyptra

I return all to you and if you believe that I have correctly named them you can so mark the packets –

I have a number of plants, sketches, etc to which I wish to add more I will send soon –

I expect to go to the Centennial next week and will be from home some time

Yours truly,

Tho. P. James

Cambridge June 22 1876

My dear Sir

The enclosed Cactus Bracken and Asphodelus dropped out of the package with the Enumeration sent yesterday –

I have sent it as you may be desirous of seeing the sketch and which I think is the true O. decaphanum and you can safely insert in the Synopsis

There are in the package from Mr Wright San Munco Texas two distinct species or of the O. decaphanum that is very little of it mostly the O. canum which I think it is.

I think the characters of both are made out satisfactory

I have put in a sketch of the O. canum made from a slide of the plant loaned by Mueller to Mr Sullivant

Hurriedly but truly yours

Thos P Sargent

No. 80.

Cambridge June 21 1876

C. Lequeyrey Esq

My dear Sir

I now take up the enumeration of the Mosses at page 38 –

215 I believe it best to retain the G. aquatica let it remain –

I have inserted localities & collectors names

221 Bryum Brandegei Austin – I had a packet from Rau named thus but I could only find Bryum inclinatum in the packet and cannot pronounce upon it Mr Rau promised to get me a specimen but as yet none has been sent and I think he will not be able to get one for Mrs Brandegee this season I believe Mr B has exhausted his stock of it I therefore cannot verify Austin's name etc etc – and it will have to be passed over for the present

223 I have not seen G. contorta from any American source

225 G. torquata Grev. – Drummond set is right it compares accurately with a specimen of Grigg from yourself & therefore no doubt

226 & 227 None of these to examine but as you are satisfied let them stand

228 I have add localities etc – and to others

243 I would like to compare a specimen known to be R. revoluta with R. deflexifolium – I have not had plants collected or sent out by Dr Mohr to C. Mueller – I have a set from Dr Rivius and finding a Rannitz in which I took to be the new species so I thought but as it differs so materially from R. deflexifolium I have doubts whether my naming of Dr Rivius specimen can be correct –

244. Have you a specimen of R. varians? or have you seen one –

254 I sketched C. Jamesii Rich and have sent it to you and I think it a distinct & new species am sorry that it has been named for me as it may be thought I am partial on that account.

255 C. Rami Austin Having received another example of this – I have made a sketch and send herewith – you will see that it is distinct – but whether a Cercinodon you will note –

259 I cannot find a Bryophilomitrion in Drummond's set – Could Mitten have had it from another distribution collected by Drum and not in the set –

261 A Mongeotii – is not found in tufts of trees but in similar positions as A Lapponica in Philad.a Pequa – Catskill New York & White Mountains Ames.

263 Z Californicus – I found published in Bot Zeitg. for vol XX Oct 1862 page 361 not 338

Zygodon viridissimus

Brid
Hab. White Fall near York factory Bit America Drummond
In no 27 of Drum set N.A. Mosses & is correct – and is named so by Wilson & by Schimper when the examined this set –

264 A Drummondii – I do not find A. Drummondii in his set N.A. mosses nor is it mentioned by Mitten in it – probably Schimper had it from Drummond and from Canada –

269 A. Americana – I cannot detect what Mr Mitten calls A. Americana for a certainty – I made sketches & sent to you of one from 153 Drum.a you can judge of it

274 C. Lovigatum has turned up in Sullivant's Herbarium in several ways – on slips of paper on slides etc – and Sull: makes it a variety of C. Speciosum.

275 C. capillatum – Austin's plants C. Lucianii are all from Clifton C.o N.Y.

282. Sullivant makes C. Schreberianum Nutt = C. pulchellum var longipes which species is found on Oregon Hill California Solander & Vancouver Island by all – Is he right to make it synonymous with C. pulchellum?

284. Sullivant enumerates a number of Species under C. speciosum –

303 Dyrhizo Texanus – I have sketched a complete plant showing peristome operculum but not the calyptra – and yet I have no doubt that it is a Dyrhizodon

304 Unknown to me

No 8

that you may examine at your leisure and as I am about taking your advice and am going to the White mountains tomorrow and will not be able to send further material for sometime — I will select specimens from Hall's Oregon Musci for you after my return home

"Atrichum" undulatum — it I have made a new sketch of this — it is a new species of Pogonatum & might be named from the length of the leaves or their nature I re-submit it and if you think it not worth notice let it pass.

Pogonatum alpinum Mt. Alaska
Pogonatum contortum Oregon Hall
Pogonatum contortum Rocky Mts Parry
Oligotrichum Lyallii var. Alaska
Pogonatum alpinum v. cumpanulatum Rocky Mts Parry
Pogonatum alpinum v. fuscatum Alaska
Pogonatum alpinum var Lake St Paul Alaska Harrington
Pogonatum alpinum var fol & capsule longer Bishop
Pogonatum alpinum var fol longer Ontario
Pogonatum capillare much branched Sitka Bolander
Pogonatum ~~capillare~~ v. pumilum Alaska Harrington

No 81. Cambridge July 10th 1876

V. Lesquereux Esq.
My dear Sir

I wrote to you on the 21st June and returned the Enumeration with my remarks fully on all the species needed and enclosing specimens and sketches, and the next day sent the O. diaphanum which had dropped out. I trust all came safely — I now add as follows —

(12.) Etheridge making one from Hall's collection — Dicranodontium pellucidum var serratum it is unquestionably that I send it for yourself

(76) Orthotrichum pulchellum which has turned up in Hall's set

(113) Orthotrichum phyllanthum — it is undoubtedly that plant it has every character — It has just been found — you can enter it on the Enumeration locality Oregon —

(53.) Grimmia Oregon Hall legit — This has come to light lately from Hall's collection I have sketched it — send specimens and have fully remarked upon it. This to me a novelty and I do think it a new plant

(19) Bartramia erythrocaulis ? C. Müller in a fruiting condition — It is the nearest I can make to its description but you may after reading C. M. think it too slender for that plant.

(12.B.) Bryum — Oregon Hall — This does not seem to be B. pseudotriquetrum The areolation is too condensed —

(15.) Bryum — Oregon Hall — you may recognise it no male organs found

(10.) Bryum Oregon Hall this is a beautiful

blank — I cannot detect male organs
it is too close in its aroolation for either B.
alpinum or B. Muhlenbergii I have com
pared it with both (foreign specimens) —

Antennaria — a few stems which Mr. Ker
by Smith of Phila. collected in Ontario
in 1872 — Although not fruiting it is very
interesting — a cross section seems to resemble
that under Pogonatum dentatum figured in the
Sept. Scoms Sullivan but it is so different in all
other respects — the P. dentatum is said to ex-
actly correspond to P. capillare if not the
same — Our plant is totally different from
P. capillare its texture precludes the idea
of a Pogonatum —

I have gone through Wallis collection
of Oregon mosses — and enclose a list of
what I make them to be —
If there are any of them you would like
to have or would like to see or examine
please name them and I will promptly
forward them to you
Of the pleurocarpous division which we
have not yet reached in our Enumeration
there are very interesting plants and
which I will submit hereafter
There are some I must mention. viz Stereophyllum
phyllum heavy this is undoubtedly that
sp: it corresponds in every particular there
is not much, but enough to fully determine it
I may get more of it from Hall —

Limnobium obtusifolium — unquestion-
ably that species and to our satisfaction in
fruiting condition for the state which has not
heretofore been found — C. Mueller gives it
under division i pedunculatum covi.
which it is not but strongly ringhemd &
under N. actinum from which it differs
It corresponds accurately with Drummond's
N. obtusifolium in form and in leaf which
is all that Dr. Gray recognizes found —
The N. obtusifolium? which Dr. Mohr sent
to you corresponds simply in the leaves &
may be another species which can only be
determined by fruiting plants —
There are other Hepaticas species, a-
mong them which I do not make out but
will come up when we get into that divis-
ion — or if you would like to have before
we take up that division please name
them and I will send them
Hope to have favorable accounts of your
health I remain most truly your friend
Thos. P. James.

No 82 Cambridge July 24 1876

Lesquereux Esq
My dear Sir: —
I have your favor of the 17th July
with the Enumeration to the end of the
Acrocarpi and the returned specimens which
I submitted to you — some of which I am
to compare and determine — this I will do
soon — when they arrived I had under exam-
ination the Pogonatum and now as I have
gone through my stock of uncertain ones
I have thought it best to send them to you

— No 83 —

Cambridge Sept 22 1876

L. Lesquereux Esq
My dear Sir

I return you Recamier's depression — and paper "Two species Orthotrichum of Hall not yet recorded with remarks thereon —

You will notice some remarks on your paper the "Enumeration" Page 54 and onward — I have inserted the localities in Hab. as the rule —

I infer you include Sphaerocarpum texanum under S. zelanicum but ~~[illegible]~~ scripts — assuming they are distinct —

No 333 I send originals and a sketch copied from the one in Sullivant's herbarium on a smaller scale and what specimens I have for your examination and determination —

334 Has been found in various sections in spring and dry

339 — 345 I note you have taken Lindberg's arrangement the localities are wanted — You have omitted ~~[illegible]~~ the — 120 California F. convolutus Hampe in your Pacific M.

351 References given

359 sent a sp: can the be Bry. Ludwigii

361 Note remarks —

361b Webera carnea which I think is the species see specimen sent — the only specimen —

368 Red specimen from Alaska Warrington

369 Bry. warnei
I send your specimen which I doubt it to be B Warnei can it be a small specimen of B pallescens — I add a plant which I think is B. Warnei from Alaska & a barren sp from St John N B.

369b Bryum (Leptobryum) from Alaska Hunter for your determination keep specimen (I will make a better sketch if you wish)

I send a specimen from Pewee Lake with sketch for your determination

374 I send specimens of what I mark B provencalense for your determination
— (B Donianum Zetterstedt syn) = B Platyloma from Oregon Hall. to California Foster — Florida Chapman —
— Bryum apiculatum ? Entosiphon Florida Smith
377c Bryum versicolor Florida & B Smith

380 Bryum Atwaterice — I return the specimens sent to you with further remarks on re-examination etc etc
— I Bryum differing from the above which I got at Lake Conway last July sorry it is barren

No 386 Can you spare me a scrap of B. Mohrii?

392 I found a nice sp. of this in Penn. first found of it and sent a sufficient

396 Bry. turbinatum — ~~which~~ ~~and~~ angustifolium Hum. & Bon. Humboldt Mts. — Nevada which has sufficient to determine but I cannot find such a variety described in Schimper or elsewhere

399 T. palacea which you report as found by Drummond & Downie — now! you reported D. Downie's specimen in Potts synopsis as T. denticulata which it was — and I find Drummond's specimen is T. denticulata also

401 M. Nevii I have written to Portland Mass. for true specimens

404 see remarks on your Enumeration

409 M. hornum is not uncommon

410 — M. orthorhynchum is found in a barren state in several localities — but the specimens in all the Drummond sets are certainly not M. orthorhynchum but M. saratum —

413 — Br. umbratile — the ~~spec.~~ single specimen of M. andrate that I have absolutely resembles M. hypnoides — I will look in suff. herb. for more specimens and compare

418b Mnium punctatum I send an Alaskan M. punctatum which differs from type may it be M. S.

— Mnium from Alaska Harrington collection

— Mnium sp. from Mr Harvard examine sketch

430 I send some papers of Platacomnacum but doubt having Pl. papillosum —

— Neckera hymenophylloides see remarks on the packet

I send some specimens for yourself which you will keep

I have divided the entire lot of Hall's Oregon mosses into two parcels one for you which embraces nearly all the single specimens I keep I have many Hypnaceae for your inspection The balance of the Enumeration will send soon

— 84 —

No 84

Cambridge Sept 28. 1876

L. Lesquereux Esq

My dear Sir

I sent a portion of your Enumeration with the remarks & specimens for your inspection a week ago

I now send the balance 74 to 80 —

I enclose a number of specimens of Bartramia from Alaska collected by Harrington by Dall and by Rothrock with sketches of each also one from California Kellogg and one from Texas by Bolls all these barren mosses but they are interesting —

(19) Oregon Hall I return with a full sketch I do not think it has been described

444 Phidmotis Calcarea I cannot think that our plant is a B. fontana variety vide sketch I have many specimens from different localities

451 Stereodon vaucheroides I send a specimen from Oregon Hall, which appears to be this species vide specimen & sketch —

450 A. parallelum I found a few stems in No 285 of the Drummond set — Pangustatum and none in No 286 Pondulatum as Mitten has it —

454 O. algerianum This species I could not identify in Drummond's mosses

The Pogonatum of which I sent a number of specimens mentioned in No 82 July 24th 1876 to which I refer you —

the foreign plant (M. serratum) had very few
two or three anthéridia in the fruiting specimen
Is a plant dioicous that has very few anthéridia
in the fruiting specimen and few archegonia? and
in other specimens of the same not fruiting being
a capsule but seemingly male plants which have
few archegonia and many anthéridia? my
notion of a dioicous plant is that the separate
plants must have only archegonia and only anthéridia
My impression with regard to M. umbrosum
is that Mr Mitten has too hastily determined
the character to form the sp. nov. and yet Mr
Schimper has called this Drummond plant
M. orthorhynchum var. ... He has been
equally hasty unless some sets of Drummond's
have plants of the two species mentioned
with and others ~~not~~ have not — where did
Mr Sullivant obtain the specimen from
which his plate was drawn? —

Cambridge Oct 4th 1876

L. Lesquereux Esq
My dear Sir —

Your favor of the 25th ult
concerning Dr. Mohr-Mosser — I have not yet
looked into these interesting specimens — I will
take them up and when I have examined I
will have to send Report & specimens to you as I
do not know Dr. Mohr's address —

I am greatly pleased that you have been to the
Centennial and spent the time that you did and
were so gratified with all that you saw except the
(Agricultural) Horticultural department (you mean) that
surely does not meet expectations it is not in the
right hands. It is truly a very great Exposition where
one could spend a month and not see all — I have
been there on two ~~occa~~ separate times — at the opening and at
about the same time that you were there —
Much you were on a fine excursion thro' the Coal
region with a select set of companions I am glad you
have had such recreations I have no doubt it will do
you much good —
I have been overhauling the bundles in the Sullivant
Herbarium etc but cannot find the parcel containing
the Venezuelan Musci — Dr Gray has returned from
his visit with several Botanists to the No. Carolina
Mountains and had a fine time —
Since I sent the Moser enumeration I have been
to the Seller Herb. and opening ~~of~~ the Bartram ~~of~~ dif
formed new material to report upon which has kept me
several days and I send ~~it~~ once that you may look
over them whilst ~~the~~ that division is under your inspection —
— Bartramia Stricta var. (& a fine sketch)
California C. Parry !!
If this I infer you have a full knowledge of and it is only
necessary to remind you of it to introduce the locality in the
Enumeration — And —

"Bartramia stricta?

San Marcos Texas Dr C Wright 1849"

Within this packet is one of your remarks by your doubling its position as B stricta which you will recollect – it has not the aspect and characters of the foreign or the Parry californian specimen – what is it? – another –

"No 32 Bartramia stricta?

San Marcos Texas Dr C. Wright 1849"

This is certainly doubtfully B stricta? light green color it is decidedly diœcious and therefore not B. stricta – ~~light dull green~~ color

And not examined viz –

"Bartramia

Oregon collected by Douglas"

Of this I found a specimen and a hasty sketch it is barren – but with male flowers

"Bartramia

Oregon collected by Douglas"

of this I send a specimen and a small sketch it is in fruit ~~but~~ capsule too immature to find a peristome but I thought I did detect an approach to one – this I have No. 2

"Bartramia

Louisiana Dr Peck by Conn by Dr Short"

see sketch & specimen

I have brought home ~~a~~ papers of Bartramia collected by W P Schimper and have compared the ~~fructified~~ envelope with your specimen for Mus. Lestiani and find ~~(the leaves &c)~~ of the Mus. St. the leaves the large ones have a ~~the~~ stronger defined nerve ~~and in greater number~~ – your sp. has a wider indistinct ~~in portion~~ nerve & has more of the smaller leaves which are broader at the base than the foreign – the stem leaves have a more acuminate point but not longer leaves –

Your B. calcarea is not I think B fontana var. and distinct enough from descriptions to be a different species –

I have sketched and sent specimens of

(17) Bartramia calcarea? Oregon E Hall"

I give only the perigonial and stem leaves for your determination

Bartramia Mohriana I have sketched this plant from specimen of Dr Mohr – ~~with~~ I have ~~attempt~~ attempted a leaf drawing by camera lucida for the first time the outline is right but the areolation is somewhat too close Bicra indeed is in Dry Set on Rocky near the highlands of land" Rocky mountains

I send the specimen of ~~my~~ Mr Lyrmnophyllodes which I sent to Mr Sullivant & which you observe he has marked it Mnium spiculosum – I enclose a few stems of Mr Lyercnophyllodes from S O Lindberg which on comparison resemble mine precisely except my plant has grains of chlorophyll in its leaves –

I found Bryum Schleicheri in turning over my Drummond set – and send stems of the fur in the set and a sketch of a leaf which you will find in Schimper's synopsis p. 380 is reputed a synonym under Bryum turbinatum & latifolium –

Mnium umbratile – I have compared the specimen that I have under that name & which I believe to be right with both ~~with~~ the foreign & American M. lycopodioides and I find it differs in having broader & shorter leaves, serratures much less prominent and not having the narrow ~~C~~ canal leaves so marked in the M. lycopodioides – and is not B lycopodioides

I have taken it up again and have carefully examined ~~my~~ the packet in my set of Drummond No. 259 also looked into the two sets of Sull: Hub. and find all alike – and I find intermingled with the plant Mnium cuspidatum Limnia &c &c Mitten says of Mn. umbratile sp. n. that "in appearance altogether like M. serratum Brid and with foliage as in that species but in its discovery in reference allied to M orthorrhynchum Brid which was mixed with Drummond's specimens of his Bryum marginatum (= M. serratum) differing however from this in its softer leaves with cells four times as large ...

Now! I have carefully examined every specimen and have cut up many of the plants and find all the fruiting plants that I cut have ~~capsules~~ perichætial in the perichætial envelope in some only one in others two to four, and in in specimens apparently male plants I found quite a number of male organs with paraphyses and a few archegonia rather feeble but yet certainly female organs – I compared the Drummond plants with the specimen marked as Mn umbratile and find them identical and to satisfy myself I cut up the best of two specimens ~~fully~~ so labelled umbratile and I detected three antheridia in floral envelope and I compared this with foreign M. serratum and the only difference that I could observe was that the leaf cells were larger in the foreign

Cambridge Octr 4th 1876

My dear Sir

Your favor of the 25th 26th ult. covering Dr Mohr's Manuscript came duly to hand. I have not yet examined these interesting plants except one the Bartramia Mohrenina having become interested with some of our species on which I report herewith.

I will have to send the report & returned specimens to you as I do not know Dr Mohr's address.

I am greatly pleased that you have been to the great Centennial Exposition and that you spent the time there, that you did, and were so gratified with the very numerous exhibits to be seen, except the Agricultural Horticultural you mean that surely does not meet expectation it is not in the right hands. It is truly a very great display where one could spend a month and not then see all. I have been at two seperate times at the opening 3 weeks not however daily and again recently and about the time

you were there, but I did not see you, should have been delighted to have been there with you.—

Further — you were on a fine excursion thro' the Coal regions of the state with a select set of companions which must have been a great enjoyment to you. I am glad that you have had such recreations they will be of great benefit to you

I have been up to the Sullin. Hubaun and have searched again for the missing package of Venezuelan Moss, but in vain. I could not find it any where about — Mr. Watson was absent — he is at the Centennial — I do not abandon the hope of finding it or of knowing more about it — —

Dr. May has returned from a trip to the North Carolina Mountains in company with Dr. Engelmann — Canby — and other botanists having a fine time

Dr Hagen has had very strong inducements offered him to return to his native land —

— Melanomnion palustre? Oct 19 1885 this specimen has just turned up having been overlooked it among my plants I have sketched a leaf of it and of the Big lake plant for your inspection & return the Lily lake plant for comparison

Very truly & sincerely
Yours
Thos P. James

86 86.

Cambridge Oct 19 1876

P. Lesquereux Esq
My dear Sir — Your favors of the 9th 10th & 15th are all received with contents — I receive specimens of which you returned of mine on which are remarks of import for our future work of describing —

I may have some response from Prof. Macoun and I may have an opportunity to reply and clear up impressions —

I intend you shall have specimens of my stock of Musci. will look them out for you whenever leisure permits

That pretty specimen of Sciaranum crocea calatum I could not pass as it fell under my eye

With regard to the Mnium umbratile — very singularly enough in all my examination, comparisons etc. of the Drummond Mnium serratum I did not look at the delineation of Mn: umbratile Mitt. in the suppl to Jones and thus note the great discrepancy of the specimens in the Drummond Mn: serratum compared with the figure in the Jones of Mn: umbratile — a few days after sending you my remarks etc. I opened to the figure & I was surprised — the figure in no manner resembles the Drummond Mn: serratum — The figure does look

so much like in all respects to Mnium cyclopodioides that I think Mr Sullivant must have had that species (or Neck American example) to sketch from — Now can it be that Mr Mitten has had the Mnium cyclopodioides before him in making out his diagnosis and has sent or loaned such a plant to Mr Sullivant for him to draw from — as I understood that Mr Mitten had furnished examples to Mr Sullivant for the purpose, and which Mr Sullivant had returned them all to him

What do you think of applying to Mr Mitten for the loan of his plant of Mr ~~Lyrifolioides~~ Pennsylvanicum? —

The Bartramias that I sketched and said from Mr Sullivants herbarium were marked not examined — I therefore thought as they were American and within our range they should not be passed by — Had I thought that Mr Sullivant had examined them fully I should not have took at them —

Paylorea serrata var tenuis is not in Drummond set and therefore No 319 will have to be erased — I have never written about the Drummond Paylorias — you must have got ten your impression on the subject from some other source —

Funaria convoluta Hampe I found the closed specimen in Sulls Hab and have sketched it — I will have to look in Bot. Zeitung at the Library of Bot Garden for it —

I observe you wish to retain Bryum Schleicheri —

I will look all through Drummond's sets at leisure and if I find any thing additional I will inform you

I believe I am on good terms with Mr Austin also with Mr Rand — I have not had any communication about Mosses of late with Austin but have about Hepatics

Thuidium subpinnatum Hampe I found then in Sull: Herbarium and send it with a copy of the sketch in the Herbarium — I have not put it under the glass — I must be communicated

Abietinum undulatum from the White Mts — which I got in 1859 — it is barren but is peculiar in its very branchy condition

For several days past when at leisure I have been ~~carefully~~ carefully examining the Mosses sent by Mr C Thorp — I will be done soon when I will send all to you — you must see them & with the what I make of them

Your letter of the 15th received to day with contents shall be attended to shortly

I did not know that Mr Suber had explored Florida

Dr Engelmann is at Dr Gray's he has been several days there

Cambridge Oct 21 1876

L. Lesquereux Esq

My dear Sir, I have now carefully examined Dr. Colton's Mosses and determined them to be as follows viz. the names on the papers of the specimens —

No. 4 "Atrichum and A. ranthopaspum ?"
= Meaning of course Atrichum ranthopelma —
I have sketched the (on leaf by the camera lucida) specimen assigned to me and send it for your inspection — It seems to agree pretty well with the diagnosis (and with the name) you will observe that the perichætial leaves are long & narrow — not similar — I incline to believe this specimen is the Catharinea (Atrich.) ranthopelma C. Müll. N. S.
Dr. Hall's specimen proves the same see No 4 Atrichum Oregon Hall (25) for sketch & figures

No 2. = Neckera (Orthostichella) Lindbergii C. Müll. N. S.

Of this I have made a slight pencil sketch No. 3. ~~which corresponds~~ the characters of this are as described in ~~which~~ with diagnosis as published —
I have the same plant No 2 collected by Mr. B. Smith in Florida in 1859 which I had sent to you & also to Mr. Sullivant but no notice was taken of it —
I have compared it with a specimen collected in the Andes by Spruce named & determined by Mr. Mitten as Pterobryum Pohlii Schwg. section Orthostichella which in leaf corresponds with the sp. No. 3. of Dr. Mohr — The aspect of the plant is different but the spruce plant is in a fruiting condition. Sullivant has a Pilotrichum cypricolum ~~described a Pilotrichum of Florida also~~ Florida from Dr Gray and it is distinct —
If you need a better sketch I will make one

No 1 "Oregon — Orthotrichum by Dr Rovins" this plant I have sketched and made full remarks on the paper containing the ~~the~~ specimen it is O. pulchellum.

Hyp. Dicranum [illegible] [illegible] [illegible]

me to look at again sending additional plants and I have made a new sketch by camera & showing the plant more plainly — The flagella of our plant seems more to be immature branchlets or innovations of fleshy texture and leafless at the end of the branchlet — not as delineated in B. & S. —

Mnium undulatka Harrington

I have by camera sketched a leaf —

Your letter of the 24th came at 11. a.m. to day covering Fumaria corydalis —

You, it seems think the Eulaconnion Sly take it Zygodon squarrosus — about the white Mt. specimen in fine fruit is it Z. squarrosus?

I have kept myself so very closely at the work of which the present report is evidence that I have not been up to the Sulls Hub or Sullis library for information desired since my last letter — I must go there —

I expect the package of Sullivan Calif. mosses by next mail — I will examine them as soon as I can

I will examine the rest of the lain by — and report soon

Very truly Yours
Tho. P. Jones

87.

87.

Cambridge Oct 27. 1876

Lesquereux Esq
My dear Sir —

With regard to the Florida Musci collected by Mr Garber I have to report as follows: viz —

No 1 — "Orthotrichum sequicum Sullivant" is a pauperculus specimen of Orthotrichum strangulatum being monoicous — cilia in a single row of very narrow cells — capsule dark chestnut strongly ribbed —

2. "Octoblepharum albidum" yes! not uncommon had it first from Florida in 1859 —

3. "Bryum pyriniale Phil" Yes! who is the author of this species? (Phil?) — where published? I return this to compare at leisure with some of my Florida plants

4. "Tetraplodon australe S & L." Yes!

5. "Rhizogonium spiniformis Phil" Yes! I have had it from Florida in 1859 not sure —

6. "Sphagnum cuspidatum Ehrh" yes! —

Barbula dealata De Not — I have made a sketch of this, which you can compare with that made with the plant from H C Mull — I return the specimen as "you have plenty"

From C. Mullers Herbarium

"Barbula purpurea mihi n. sp." — you remark that this is not described — this is a mistake you will find it on a pamphlet (Separat — Abdruck aus "Flora" 1875 Nr 5. und 6.) Manipulus muscorum novorum e Amer. septentr. C. Müll

No 4. Barbula (Eucophyllum purpurea C Müll n. sp. I have made a sketch of a leaf under camera — and returned all —

"Barbula elata Mtg Bay of San Francisco"
Of this I have made a sketch in full which you can compare with your plants —
There are 2 plants of B Belandrei in the packet

"Bartramia vesicolor Hpe No 14" where published
I have sketched it — I have not seen a male example of the kind of this species any where —

"Catharinea planifolia C Müller No 44"
and No 12. — first time seen by me —

"Bryum coronatum Schwg" No 34
Bile sketch which compare with our spn
here with sent — and fully sketch which we called Bryum versicolor — (not B. bicolor as you mentioned in letter — you will see the great disparity in form of leaf areolation &c.

"Polytrichum substriatum Hpe" I have sketched a leaf & cross section —

A few days ago I received from Rev Dr. Nevius specimens of Mn. Nevii & Grim. Nevii not very fine but amply sufficient to identify —

Grimmia Nevii C Mr. I have sketched
Mnium Nevii C Mr. — I have sketched
This species is unquestionably M venustum Mitt. I got at Sull. Herb, a specimen col by Dr. Lyall Vancouver Island from which no doubt Mr S. has made his delineation in Sup to Scony and from which I have compared with spn from Dr Nevius and have sketched & send herewith I consider the plants identical and the spn from Your Uriah Bolanderi is the same also identical with plants by Kellogg — I have specimens — I have plants showing 5 and 6 pedicels from the same perichaet — and one a small plant with 4 pedicels — Dr Nevius plants had one to three pedicels —

I have to remark with respect to the delineation in the Sup to Scony that the areolation figure is entirely too much magnified and too clear — the Lyall specimen is far clear and somewhat obscure — precisely as the Nevius spn

Racopilum tomentosa — I would like to see a Florida specimen — altho I am familiar with it and with varieties from the Sandwich Islands also among Spruces Indian Mosses —

Who has named Hookeria acutifolia — H. Sullivantii? — I cannot decipher it? —

I would very willingly pay my half or the whole of the expense by Express for California plants

In sending by mail at rate of one cent for two ounces or fraction thereof — I copy —
"The sender of any article of the third class
" of mail matter may write his or her name
" & address thereon or on the outside thereof
" with the word from above or preceding the
" same or may write briefly or print on
" any package the number and names of
" the articles enclosed"
Having observations and remarks on the packets precludes ~~the~~ sending this package at 3 class rate — —

After finishing my sketching & &c of those plants above reported — ~~Put at~~ to day I ~~turned~~ took up those I put aside from about ten days since — The first was
Bryum Warneum Blum which you wished

88 — 88 — 1

Cambridge Nov. 3d 1876

L. Legouix Esq
My dear Sir

After despatching my last (87) I continued to investigate the Bryums under examination and now send the results

"Bryum apiculatum?" I have sketched a leaf under the camera — and the areolation does seem too compact for a small form of B. platyloma — look at it again — it does not agree with my proper B. oblonicum —

— Bryum — Florida S. B. Smith Da 1859"
The capsule is so like to B. Coronatum that I thought it must be that species but the long excurrent cuspidate nerve — I get rid of

— Bryum lacustre var. Pepoff Island Alaska I think from the areolation it is right

— Bryum lacustre Alaska Dall — I believe this to be B. lacustre — different areolation from B. arcticum

— Bryum capillare Franconia N.H. July 1866
I have made a magnified sketch and it appears to be B. capillare — I had made them before I going to the Sull. Herb. where I did so day before yesterday and brought away the following packets etc. which after using please return that I may replace them viz 3 packets from yourself, marked — Bryum occidentale Dall: This form is mixed etc etc — B. occidentale var. California (Oakland in the woods) Bolander — and B. occidentale var. Ja. California (Bay of San Francisco) Bol. typ — on all these Mr Sullivant has marked these specimens belong to B. capillare and not to B. occidentale I also send a letter of yours to Mr S. dated 16th July 64 as you may not have a copy

I have also made sketches of No 283 Bry. occidentale of 2d Mus: exped. SHL in this are two distinct species to be seen by one is B. capillare — what is the other? —
also sketches of No 284 B. occidentale var and on the same sketch of 197b B. occidentale 1st ed. Mus. Lux

On working these up I called to mind some what that Mr Sullivant mentioned about these No. So I looked up his letter and send it it is dated Oct 3 1869 the last paragraph — which I send please return it — I had made these sketches before going to the sell-that I also got packet — marked "Verum!!!

Byrum occidentale Sullivant Amp pinellias California Bigelow 1854

which I send and have sketched it you will find it in the packet ~~after mark~~ I had made the sketch & then compared it with the delineation I observe on the packet a slip in pencil B. to Appleanum. did he contemplate this name? the two blades that I mentioned I return as I never saw it before —

— Marum medium from Dr Lapham is right it has all the characters = the peculiar one of ~~being~~ having the leaves serrated to the base like M affine

— Mu: medium from Little falls right!

The same is the Cambridge specimen which I have had several times from Concord Avenue but not in fine capsule this I will watch for the coming season it is a remarkably fine large plant

I got whilst at the Herbarium packets of

— Bryonalum contortum — Specimens of Brown, collecting — and a specimen of Polytrichum attenuatum on which Mr S. has remark that it no doubt belongs to the the true Pol. contortum of Mussia

I send also my specimen on which I have remarks — I mean on P. attenuatum —

Please return all these that I may replace them — I send also two papers from Stell: Nat for your perusal

I have been so intent in the foregoing points that I have not looked into Mr Sullivant's California Mosses received a few days ago. I will take them up

I write this under the use of my left eye solely — the other is very much inflamed — blood shotten — I keep it shut or closed all the time that it may recover I do not feel pain in it but think it will recover quicker if not used it is not the eye I use with the microscope I think the inflammation was brought on by my reading at night — I shall have it rest as to-morrow is Sunday

Yours very truly

Thos. P. James.

90. 90

Cambridge Nov 9. 1876

L. Lesquereux Esq

My dear Sir

I have made sketches of the Neckeras from Florida and send —

— Neckera — No 22 from St Augustine Nov 1876 sketch

— Neckera (Orthostichella) Ludoviciae C. M. & Sc. Moder. Herb.

— Neckera from Enterprise D. Brinch 1857

— Pilotrichum cymbifolium Sull. for a tree in a Hammock at Florida

also

— Pterobryum Pohlii Schw. Sect Orthostichella — under this I have sent my only specimen that you may see an Orthostichella in perfect condition — altho' none of the Florida specimens are in fruit yet Mr Mitten has classed the Pilotrichum cymbifolium Sull. under this — Orthostichella solely & called it Pterobryum cymbifolium (Sull. Icon. Mt. Mitten says the same sp. has been found in Cuba 20 might No 77 Sullivant's report) but I have not seen it I will look it up at the Herb to see if "There is indeed a long resemblance"

— Acrocomnion — Lily Lake St John N.B. is not Zygodon Squarrosum — as the leaves are not intermixed with late ovate and the stems of pseudopodia appear on it — It must be an Acrocomnion — Regret no fruiting plants have been found — I have it from a variety of stations

I have carefully examined John Donnell Smith's Florida mosses and determine

No 22 Pilotrichum (Orthostichella) Ludoviciae Ohio & Ill. Sketch

— 8 Cryphaea glomerata certainly not a Pilotrichum

— 15 Weisia viridula unquestionably —

— 16 Zygodon Vandamus Sull.

— 19 Sphagnum cuspidatum not pycnoclados

— 25 Campylopus viridis Sull. Now Dicranum viride

I return every specimen in fact have not kept a scrap of any —

89. 89

Cambridge Nov. 6 1876

L. Lesquereux Esq

My dear Sir

I have just rec'd yours of the 2nd inst. and hasten to reply fearing you might send to Dr. Moder his plants which I looked over too soon and before you have re-examined them. I hope they are yet in your hands

I wrote and despatched a parcel to you Saturday — which I trust you have received. I was at the time laboring under an inflamed eye — it is better to day but as it does not use constantly by the eyes. this must account for loose scribble of the contents of the parcel

— Neckera Ludoviciae is a distinct sp. from Pilotrichum (Neckera) cymbifolium Sullivant delineated in Icones — I supposed you had a copy of the Flora containing the diagnosis I did not know that I had your copy — I return it by the mail that takes this together with several others sent by you they do not embrace any North American sp. — I have more of the Flora as you will observe by the enclosed list of C. Müller new sp. — I infer you may have the additional but as you may not I have copied this list for you to compare with the enumeration.

I sent you sheets containing Yager's diagnoses of Brachidecta which I had borrowed of Mr. Ingraham of Mus Bedford which I promised to return I sent them last February — after making extracts from these sheets please return them.

I will make a good sketch of the Mexican Lecidoviae soon —

— Barbula prepared you will find in your pamphlet

— Byssus pruinosa I have not Schimper's 2nd Edit. of Synopsis and have not seen the name of the author in print, but as it is B Bellardii all that is needed —

— Hookeria Sullivantii — I could not decipher the name of the author as given in your letter so I asked for it — I have not nor never had a package of H. Sullivantii as you seem to think —

In relation to Dr Mohr's Hypna — I named the dozen examples as I made them out — in accordance with Sull: I gave — Hyp. fulvum — H. albulum — Hyp. microcarpum & H. deminutum — H. micans — I have not kept scarcely any simply that for some of some I had received for examination I wrote from recollection I puzzled long over them — on some examples were more than one species and may have Austin & I have had different plants or may have Dr Mohr may have sent different species to each of us — — I know well that Hyp: microcarpum & H. deminutum are totally distinct from Hyp. ~~(Hypnum [illegible])~~ nemorum fulvum & H. albulum — the Hyp. micans in Suppl. to Icones is quite a different I refer you to Austin's catalogue of his Mus apparatus — where you will find — No:

427 Hypnum micans
428 Hypnum micans & fulvum — H. fulvum
429 H. micans var albulum — H. albulum
440 H. Novae Caesareae Aust. — H. micans var
~~Now look at his naming on Dr Mohr's Hypnum and explain~~ —

— The Alsiechum of Dr Mohr which I sketched I understand Dr Mohr thinks is A. xanthelema I have copied Meyer's diagnosis and have put it in the packet of the Alsiechum from Hall which I return for comparison —

You will observe in my last I mentioned that I had received Gibbes California plants

The plants which came in your recent letter ~~I will~~ from J. D. Smith of Baltimore from Florida I will soon look into —

P.S. — I have just to the Sull. Herbarium and have searched among the leaves for Schlotheimia & Syrrhopodon — through all the orchestrichatoo — and find only one paper Schlotheimia Sullivantii Allen St John Parish L. C. Allen Rapids and no Syrrhopodon — if ~~this~~ you would comm. Lep. & this paper I will send it at another time

Am I to return the lot of Gibbes Mus ~~with~~ ?

My dear Sir

90th Postal card Not No.

Cambridge Nov. 13 1876

I got yours of the 9th this evening with the returned specimens — B. apiculatum — I forgot to mention that I sent that plant under that name that you might identify that packet; not that I still considered it that sp. — I think we will be safe in calling it B. Oconicum var. B. coronatum I agree to so call it — B. acid. indolente &c I think best to let them stand as Mr Sullivant has reported and delineated them — Of course you will keep your plant Lanterton or do you wish you Schlotheimia Sallwinkii &c. If so I will send it

You may keep Jäger pamphlets until we have done with them — I may address Mr Sprakman a postal card about them — I expect you have my last (90) covering specimens of Smith's Florida Moss and sketches sent on the 9th to your care at the Gibbon's California Moss and about 2/3 through I find novelties to submit to you I would like to keep some of them am I to return all or only to report by the names by the numbers

Very truly Y. & D.

~~Not~~ 91st —

Cambridge Nov. 1876

L. Lesquereux Esq

My dear Sir

I have just received yours of 14th and have read your remarks on the Smith Florida moss — The hypnobrachen I compared with Spruce's specimen Mus Exotic it seemed to correspond but from your remarks I would like to have it again & very gladly re-examine it and sketch it —

Pilotrichum (Cryptoleaea) glomerata — I have a specimen in Drummond's coll. N. Am. Mus and had it with the glomerata together thick the Smith specimen from the Arcolation of the leaves made it glomerate I would like to re-examine it & make a sketch

When I represent a magnified delineation in my sketches they are all drawn with the same power so that when the representation is large the plant portion drawn is large and when the small the plant portion is that diminutive — Some bel one power in tracing under the camera lucida

Please return

108 Pilotichan

16 Syrrhopodon

19 Sphagnum and I will at once examine them and return them

Have you the specimen of Hampe's Funaria convolata which I sent to you (vide 86) I have three Funariae in the California out and I wish that sp. it belongs to Sullivant. I find I haven't it — if you have returned it I must have replaced it in Herbarium. By the by — I searched all that chest yesterday for it but it was not there — I did find it in the Linnea Vol 30. pag. 455 — 1859 — 1860 I have copied his full diagnosis

If you have Hampe's plant please send it with the Florida plants

I have gone over the California plants, I differ from you in some cases

I am now going over or examining the new plants & making sketches

Hope you ~~will be able~~ can decipher the above I wish to send it by this very mail the first received it

Yours truly &c

Jno. P. Sassey

Am I to return the California plants by

I have ready and will add and send — Bryum Mohrii Sey. C Mohr by

In the transit some of the moss became loosened this I cleaned out and separated every stem of the B Mohrii from the Bartramia which I have returned in a separate envelope — I have re attached the loosened portions — there was a broken pedicel with a capsule in the loose portion which to my regret dropt off and was lost or that I could not make a sketch which however would not be important — but I have sketched the leaves & send, the first leaf represented was the only one with that accumulation point it was a coral infunctatial — you can by these recall them as seen when you drew up your diagnosis

In separating the Bryum from the Bartramia I found several stems with a broken pedicel and I opened the gemma in each the very carefully and could not find a single archegonium some from I cut apart and found only Archegonia some 25 of them in 2 instances, with paraphyses so that I consider the plant a diœcious one

I return very particular the Bryum stems with broken pedicels in one paper the ~~Bart~~ sterile stems in another and the Bartramia in another (what Bartramia?)

I hope Dr. Mohr may be able to find more and supply demand

— 1 Usia californica
— 2 Pterogonium gracile is the largest amount
— 6 Ortho: albestre & O. cylindricum
— 7 Funaria N. S. it is distinguished by its orbicular leaves in a rosula of ten leaves all of the form delineated except the narrow one below the rest — Nerve ~~fa~~ terminating much below the apex
capsule with a peculiar negro collar when dry — Operculum not prominent in a dry condition — on being moistened it expands — peristome double the teeth red — on old plants a dark red inner part: yellow —
Vide sketch — outlines drawn under the camera — accurate uniformly with same power — leaves — peristome — and capsule — no calyptra found —
— 9 Orthotrichum cylindrocarpum very little of it — mostly a Hepatic
— 16 Funaria hygrometrica var. calvescens sensu Spruce returned
— 20 Barbula Müllerei = 2 = 29 & 38 Purna phudate
— 24. Bryum N. S. it differs from B capillare in shape of leaf narrow & more spatulate — a closer areolation not recurved leaves except at & near the base where it inclines that way somewhat — and it has an annulus which B. capillare has not or is not so delineated in Sch. nor mentioned in diagnosis — vide sketch where all parts are drawn magnified and under camera — same power the figures at the upper corner are about natural size 2 caps: on back of the paper large one operculate & the smallest one of the four capsules is operculate —
There was a duplicate male gemma see outline —
— 26 Funaria convoluta Hope ?
I have compared this plant with the

* This may be a variety of B. capillare only too the marking this stand at a genuine B. capillare, foreign & I find it has an annulus & leaves like this specimen.

original Funaria convoluta Hampe
which (the Hampe sp.) is smaller but Sierra Nevada Cal Bauer &
it corresponds so nearly otherwise that
I believe it to be ~~[illegible]~~ F. convoluta
I send the few stems which I removed from
the Hampe plant for your inspection which
if you return I will replace them in the Herbarium Specimen
the Gibbons plants you may keep. I have many
I had made sketches of the leaves capsule
etc before I got the plant from the Phila Herb.
(in reperusing your letter I found you had re-
turned the F. convoluta so I went to the Herb.
and got it) I send the diagnosis copied from
the Linnea — The Hampe sp. stems are in the paper
containing the Gibbons plant
— 36 Bryum — (Barbula) I have made sketches of it
and cannot find any thing to correspond to it

I would suggest that when you write to Mr
Gibbons you ask him to send a further supply
of the No. 7. Funaria new species — I could not
find a single calyptra — if he cannot get
much ask him to spare his duplicate — I think
it very interesting and cannot find a descrip-
tion to suit it any where — May be you can —
remind him that it is No 7. we have enough
of the other Funarias

I have made the list in the numerical order
for Mr Gibbons convenience of naming his packets

Your old friend truly
Thos. P. James

Cambridge Novem 22d 1876 —

If you wish any of the other plants the Gibbons
California — mention what & I will send

this ought not to account for the length of the operculum and leaves. I submit it to you ——

— Dyrhofodon Floridanus Sull: this I sketched from a sp^n. from Mrs Essie — No 168 — having drawn it I then compared it with t. 31. Jones — I note the operculum there seems longer — you can see all the points and determine

— Dyrrofodon Abbionè Gro. — Cuba Might I have sketched this from a foreign (Cuba) sp^n. coming as near to our plants, as I could find in my Cubean collection — It is different in part, unlike ours — I have some specimens from Mexico & Guyana I send examples for your inspection

— Dyrhofodon Texanus — Sull. Jacksonville Florida I sketched this from my specimens — I had no operculate capsule (I think I sent you one with operculum) — I did not know that this sp. was fig^d in Jones — or did not look for it there in the Sup^t — until I had made sketch

— Dyrrhofodon et Trichostomum Hawaiianum — Enterprise Florida Dan'l B Smith 1860.

Here is a novelty & distinct from all others yet found — which I have sketched on two papers one of leaves only No 2 — the other No 1. on all the parts otherwise — which you will note — the oblique capsule — Short operculum — the peristome appendages in pairs — the Calyptra I found loose — but one I have and it (the calyptra) covers the entire capsule embracing the pedicel but is not plicated — You will find the section first in Mitten = but whether the species I am not sure — I hope you can consult Mitten — I send good specimens — You will observe how much it is crisped up —

— A plant from California I do not recognize —

Yours very truly Jno P. James

92

92

Cambridge Novem 29 1876

L. Lesquereux Esq

My dear Sir

I have re-examined & made sketches of the returned specimens of the Smith-Florida mosses which I enclose —

— No 19 — Sphagnum cuspidatum var. recurvum is what I had in my mind when I reported on the plant according to my Manual — not recollecting that you consider S. recurvum a distinct species so it is all right.

— 8. — Pilotrichum — In my report on this sp^n. I remarked it was not a Pilotrichum but a Cryphaea — I had in view & had been familiar with Mitten's arrangement in the Journal of Linn. Society vol XII where he adopts Tribus 13. Hookerieae under folia bifariam vel omnia — Hookeria — Lepidopilum — Pilotrichum and others — — — — fol. uninervia et de —

Tribus 14. Erpodieae — — —

Tribus 15. Neckereae — sub-tribus 1. Cryphaeae — Hedwigia — Leucodon — Cryphaea Hedwigia omnia — Leucodon omnia vel nervo singulo percurso — Cryphaea — uninervia — As his Pilotrichum has nervis cullosis dorso prominentibus percursa — which our plant is not so —

C. Müller in Synopsis embraces under Pilotrichum — — — Fontenelis — Meteorium Leptopus Cryphaea so subdividing & running into Stereodon etc. He embraces many widely different characters that a subdivision becomes necessary

Have you Mitten's Musci austro-Americani it is the XII vol. of Journ. Lin. Soc. it is not in Sull. Herb^m but he must have had it, and it has in

all probability gone with his periodicals to the College of Columbia: probably you can borrow it — It may have our Smith Florida Cryphaea ~~[illegible]~~ if you consider it new or a novelty for this country

I have sketched the Smith Florida plant to which I refer you for all the characteristics — I have also delineated Cryphaea glomerata C. filifornis — C. nervosa and another — These are all drawn under the camera lucida and all under the same power — I sketch all my figures under this power so bear in mind this fact and then form your opinion of the size comparatively

— Cryphaea — St Augustine Florida Smith
The capsule is longer, ovate — leaves much the same, and otherwise under the microscope not very different from C. glomerata Schf (below) & did not sketch but from one plant — Under the naked eye the two plants appear distinct — I send a spn from my Drum. set for your eye

— Cryphaea glomerata Schf. — No 1. I draw from a specimen taken from the mounted 347 Mus. Essicc 2d Ed. and after the sketch was done I then compared it with t. 67 Icones and it differed in shape of caps operculum & calyptra that I sketched another No 2. from the duplicate in the packet of the Mus Ex: and they prove the same I am quite sure of the accuracy of my sketches: the calyptra the upper one is from an old fractured spn and is imperfect I took another calyp: from a perfect plant and it proves a perfect cone shaped: wide in the outlined capsule — Specimens from Drummond, Mus. South States compared accurately with my sketches as did a number more from different localities

— Cryphaea filifornis Hooch Cuba Wright by

I have sketched; it is a distinct species — side sketch — the sketch not in print is from a Jamaica plant from Mr Wolle —

— Cryphaea nervosa Hdw: I have sketched from a specimen in my set of Drummond's Mus Southern States No. 100 — on comparing with Icones I find some difference — the old operculum on the old cap sides is less acuminate than the other one on the back of the leaf of the sketch —

— Cryphaea (~~[illegible]~~?) Gt Lesken Austini Illinois C. Hall by 1869

I have sketched this novelty — It had no mature ~~[illegible]~~ capsule so that the peristome is not developed — the long calyptra was not yet fractured from the vaginula — I tore off and brought out of its length an operculum as appears in the sketch of the calyptra which I delineated under the Camera — I have several other immature capsules etc — the leaves have somewhat a hyaline apex — and are sketched from mature leaves — I expect it to be found in Mitten's S. Am. Mag I got it from C. Hall some years ago about 1869

Having gotten at the Cryphaea I thought I had better go thro' my plants — so have delayed my reply upon the Smith Florida returned plants — I hope to be excused

16 Syrrhopodon Gt Trichostomum flavo-virens Smith St Augustine Florida S.D.

I submit an accurate sketch under the same power and camera as No 168 Syr. Floridanus herewith you will observe the variance in the length of the operculum — the length of the leaves — too long for my paper and the smaller size of the plant under the naked eye — which then produced by its growth on a less decayed bark — the S. Floridanus is mostly from very rotten wood and probably a much more damp or wet position and yet

this ought not to account for the length of the operculum & leaves – I submit it to you –

– Syrrhopodon Floridanus Sull. I sketched this from a sp.n from Mr. Ernst No 168 having drawn it – I then compared it with t. 31. Icones & note then the operculum seems longer you can ~~judge~~ see all the points and determine –

– Syrrhopodon Hobronii var. Cuba Wright I have sketched this a foreign (Cuba) sp.t coming so near to our plants as I could find in my American collection – I differed in parts notably – I have some specimens from Mexico & Guiana – I send examples for your inspection

– Syrrhopodon Texanus Sull. Jacksonville Florida I sketched this from my specimens – I had no operculate capsule (I think I sent you one with the operculum) – I did not know that this sp. was fig.d in Icones or did not look for it in the sup.t on t. I had made sketch –

– Syrrhopodon Enterprise Florida Dated B. Smith 1860 ~~Here~~ is a novelty & distinct from all others yet found – which I have sketched on two pages one of leaves only No 2 – the other No. 1 all the parts otherwise – on which you will note the obtuse cap.le – shorter operculum the peristome approximating in pairs – the Calyptra I found more bot. one I have and it (the Calyptra) covers the entire capsule embracing the pedicel but is not ~~plicated~~ plicated you will find a section of it in Mitten but otherwise the species I am not sure – I hope you can consult Mitten – I send good specimens – you will observe how much it is crisped &c –

– a plant from California I do not recognize

Yours very truly Thos P. Ramey

92 92

Cambridge Nov. 29. 1876

L. Lesquereux Esq
My dear Sir
I have examined & made sketches of the returned specimens of the Smith Florida Moss, which I enclose –

– No 1 Sphagnum cuspidatum var recurvum is what I had in my mind when I reported on the plant according to Gray's Manual not recollecting that you consider S. recurvum a distinct species – so it all right –

– 8. Pilotrichum – In my report on this specimen I remarked – it was not a Pilotrichum but a Cryphæa – I had in view & had been familiar with Mitten's arrangement in the Proc. of Linn Soc. Vol. XII. where he adopts –

Tribus 13. Hookeriaceæ under Pilotrichaceæ – Hookeria – Lepidopilum – Pilotrichum and others – – – – fol. numerous &c &c –

Tribus 14 Erpodiaceæ – – –

Tribus 15. Leskeaceæ – sub tribus 1 –

Cryphaceæ – Hedwigia – Leucodon – Cryphæa – Hedwigia curvicaulis – Leucodon curvicaulis – nervo simplici percursa – Cryphæa uninervia – As his Pilotrichum has nervis collesis dorso prominulis percursa – which our plant is not so –

C. Muller in Synopsis enumerates under Pilotrichum – Pentenalei – Meteorium – Cyclopus – Cryphæa so subdividing & running into Pterobryum etc. He embraces many widely different characters that a subdivision becomes necessary –

Have you Mitten's Austro-American Musci – it is the XII Vol Proc. Linn Soc. it is not in Sull Stub – but he must have had it, and it has in all probability gone with his periodicals to the College at Glasnevin – perhaps you can

borrow it — It may have our South Florida Cryphaea if you consider it new or a novelty for this country.

I have sketched the South Florida plant to which I refer you for all the characteristics — I have also delineated Cryphaea glomerata C. filiformis — Chavero and another — These are all drawn under the camera lucida and all under the same power — I sketch all my figures and this power so bear in mind this fact and thus form your opinion of the size comparatively —

— Cryphaea — St Augustine Florida Smith. The capsule is longer — ovate — leaves much the same — and otherwise under the microscope not very different from C. glomerata Schp (below) I did not sketch but from one plant —

Under the naked eye the two plants appear distinct — I send sp^n from my Wrund set for your ex

— Cryphaea glomerata Schp — No 1. I drew this from a sp^n taken from the mounted 3167 of the Nuss Exsic 2d. and after the sketch was drawn I then compared it with C. 67. Jones and it differed in shape of caps. operculum & calyptra that I sketched another No 2. from the duplicate in the packet of the Nuss Exsic and they prove the same I am quite sure of the accuracy of my sketches: the calyptra the upper one is from an old fractured sp^n and is imperfect I took another calyp. from a perfect plant and it proves a perfect cone shape: side in the outline capsule specimens from Drum^d Miss South^n States compared accurately with my sketches as did a number from different localities

— Cryphaea filiformis Hab Cuba Wright

I have sketched: it is a distinct species: side sketch — the sketch and in front is from a fine and plant from Mr Wolle.

— Cryphaea Nervosa Hdw I have sketched from ~~my~~ sets specimen from my set of Drummond Miss South^n States 1010. on comparing and Jones I find some difference — the old operculum on the old capsule is less acuminate than the other one on the back of the leaf sketch

— Cryphaea Illinois E Hall by 1867. I have sketched this novelty — It had no mature fruiting capsule so that the peristome is not developed — the long calyptra was not yet fractured from the vaginula — I tore off and brought out of its length an operculum a appears in the sketch of the calyptra which I delineated under the camera — I have several other immature capsules etc. the leaves have a hyaline apex and are sketched from mature leaves I expect it to be found in Mitten's Am. Mus. I got it from Mr Hall some years ago about 1866 (Having gotten at the Cryphaea I thought I had better go thro' my plants — so have delayed my reply upon the South Florida returned plants I hope to be excused)

— 16 Syrrhodon — — — St Augustine Florida Smith I submit an accurate sketch under the camera the same power as No. 168. Syr. Floridanus here you will observe the variance in the length of the operculum — the length of the leaves — too long for my taste and the smaller size of the plant under the naked eye whether produced by its growth on less decayed bark — the S. Floridanus is mostly from very rotten wood and probably a much more damper wet position and yet

93

93

Cambridge Decem 15 1876

L. Lesquereux Esq

My dear Sir

I received your favor of the 11th with some of my specimens returned yesterday P. M. I have to day made sketches of leaves ~~today~~ &c –

— 8. Cryphaea pendula sp nov. The areolation you will observe is closer and smaller than that of the C. glomerata – much closer & smaller at apex & and down the leaf – at the middle the cells are oval & small & at the base there are some 10 or more rows of cells from the margin of and almost square shape, then narrower oval toward the nerve and long & narrow at the nerve – the nerve generally is shorter than glomerata – The other variant characteristics you have or will note from the sketch –

— 347 Cryphaea glomerata Sch The leaves are drawn under the same power and all the cells are larger, those at the point downward, are large and roundish-oval at the middle & about the same number of rows of cells at the base upward not so narrow as the pendula near the nerve & not quite so slender near the nerve – I have just opened to the delineation in the Icones, I had forgotten that it was figured – I did not see among all my leaves any with such attenuated point as represented in Icones – that point resembles more the C. nervosa – Further the calyptra is not split at the side (vide my sketch) –

— 100 Cryphaea nervosa from Drummond – In this sp the areolation is much closer than either the above narrow-oblong at the point, smaller oval towards & at the middle of the leaf and closer & more compact in the lower patern –

— 21. Cryphaea glomerata Sch – This specimen came to hand last evening from E. Hall who collected it in Texas in 1873. he sent 50 plants which I looked into for the Cryphaea and found this one only – the leaves vary in shape, but from the areolation I consider it as Cryph. glomerata the areolation agrees with that sp

You ask me if I will have more specimens of the

new Sp: (pendula) from a new batch from Mr Smith I reply yes! if you can spare – so few of mine are in fruit – but do not send from the original package

— Cryphaea – Illinois E Hall 1867 This plant you have returned without remark – I sent a sketch of this altho' not in mature fruit is a distinct and if not Sp nov. is new to the country I return it and wish you to look at the sketch – I have copied from Mitten his diagnosis of C. tenella which our plant resembles much, you will find this in the packet – the nerve is too short but Mitten may have erred in this particular

When I was at the Sull: Herb last time in looking thro' the Cryphaeae – I found one packet which seems to me is your property – this marked by Schimper "Returned to our Fr Sesquency" "Cryphaea Gaveana" etc & Mr S. wrote on it "Rem W P Schimper 1867" not observing that it was to be for you – These are my surmises and I send the packet – but if I am wrong please return it in your next & I will replace it

— Syrrhopodon – Enterprise Florida Dr B Smith 1860 You have sent this back with "No sketch with this" You have overlooked this as there were two slips of it No 2 of the leaves only No 1. the other characters and it is mentioned in my 92 on the last page and the last of the Syrrhopodons – I return it that you will look at it & the sketches – but if the sketches are lost I will make new ones – It is entirely different from our other Syrrhopodons and new to the country if not a new species – It came to me some years agone I could do nothing with it at the time –

— Syrrhopodon – St Augustine Florida – Smith Batt – I do consider this a new species the differences between it and S Floridanus are so great that you you would be warranted in naming it as new species I do not think the locality a more dry & sandy position would make so much variation in S. Floridanus – It is likely that this plant is only to be found on such a soil and would not be found in such loci as the S. Floridanus luxuriates in, which I believe to be a damp or wet rotten wood in shady places –

I do not want the Gibbons specimens returned I mean those that I returned to you – If you want any of the others from him & which I have retained I will send them to you – you can see by my last which I sent to you what the species were

I have this week at leisure been going through Prof Macoun's consignment of North American Vancouver's Island Saskatchewan & other British American Ontario & Canada sections but have not so far found any very important new plants – Localities can however be quoted in the Synopsis – when I get thro' I will furnish you with a list – If any thing new occurs I will sketch it and submit to you –

When I go to the Sull: Herb I will look among the Anomodon for the likeness of the plant I send last time

Very truly yours old friend
Wm P. Jaynes

the nearest & thinking may be Mitten to hastily
describe his plant —
I am sorry a developed feeling organ is not to behold
Mr Hall promises to send me his other collections
among which he mentions his Illinois Moss —
maybe this plant will turn up —

— Syrrhopodon — Eulophia Florida Griff. 1860 Bot.
of this I have made sketch on a larger sheet — You will
observe how the leaves are curled when crisped
when dry — the Capsule is in my specimen entirely
straight but curved more or less — you will find
specimens so in the minute paper the length of the
operculum varies some the peristome had a basal
membrane the calyptra is not strict although it clasped the stem below the capsule and is therefore not a Calyptra proper C. Muller H. S. 670 gives "Calyptra
thecam totam includens, laterefissa persistens, plerumque demum lacera. Peristom nulla"
I have tried to make the areolation of the different portions of the leaf the whole sketch is drawn
under the same power that I have used under the Camera but you may keep the plants send
the Syrrhopodon & the Cryphaea
I am examining Hall's Texas (not Florida
as I wrote in my last I have made sketches
of his new Pinnularia by Austin named — I will
continue at them (Hall) until it proves too
slow so I will not take up the Enumeration
just in hand from you
Prof. Hagen is yet in Cambridge and my
family have understood that he has declined
the offer from Europe I will see him soon & if
he intends to return home and I will write you
It is very cold — Yesterday a Jack on chimney
was on fire to day 2° above
Truly your old friend
The Pickering

93

93

Cambridge December 15th 1876

L. Lequereux Esq.
My dear Sir
I received your favor of the 11th with some
of my specimens returned yesterday P. M.
I have to day made sketches of leaves viz —
8. Cryphaea pendula sp. nov. The areolation you will
observe is closer and smaller than that of the C. glomerata
much closer and smaller at the apex and down the leaf
at the middle the cells are oval & small & at the base there
are some ten rows of cells from the margin of almost
square shape — then narrower oval towards the
nerve and long & narrow at the nerve — the nerve you
evidently is shorter than glomerata — the other variant
characteristics you have or will note from the sketch.
— 347 Cryphaea glomerata Sch. The leaves are drawn
under the same power & all the cells are larger than at
the point downward are large and roundish oval at
the middle & about the same number of rows of cells at
the base upwards not so narrow as the pendula nearer the
nerve & not quite so slender near the nerve — I have
just opened to the delineation in the Icones I had
forgotten that it was figured — I did not see among all
my leaves any with such attenuated point as represented
in the Icones — that point is assembly more like C. nervosa.
Further the calyptra is not split at the side (see sketch)
— 100. Cryphaea nervosa from Drummond — In this sp.
the areolation is much closer than either the above near
row oblong at the point, smaller oval towards & at the
middle of the leaf & longer & more compact in the lower portion
— 31. Cryphaea glomerata Sch. This specimen came to
hand last evening from E. Hall who collected it in Texas
in 1873. he sent 50 plants which I looked into for the
Cryphaea and found this one only the leaves vary in shape
but from the areolation I consider it C. glomerata the are-
olation agrees with that species
you ask me if I will have more specimens of the new
sp. (pendula) from a new batch from Mr Smith — I reply
Yes! if you can spare so few of mine again first —
but do not send from the original package.
— Cryphaea — Illinois E. Hall (86) This plant you
have returned without a mark — I sent a sketch of this
altho' not in mature fruit is a distinct & fine sp. nov. is
new to this country I return it & wish you to look at the

I have copied from Mitten his diagnosis of Cotinella which our plant resembles, much you will find this in the packet – the nerve is too short, but – Mitten may have erred in this particular

(When I was at the Bull's Hd. last time in looking thro' the Cryptogamia I found one packet which seems to me is your property – It is marked by Schimper "Returned to our Fr. Sequence" "Cryphaea rosenana" etc & Mr S. wrote on it "From W P Schimper 1867" not knowing it was for you I have no my suspicions & I send the packet but if I am wrong please return it in your next – I will replace it –

Syrrhopodon Enterprise Florida David B Smith 1860

You have sent this twice with "No Sketch with this" you have overlooked this as there were two slips of it No 2 of the leaves only No 1. the other characters not is mentioned in No 2 on the last page and the last of the Syrrhopodons – I return it & beg you will look at it & the Sketches – but of the Sketches are lost – I will make new ones – It is entirely different from other Syrrhopodons and new to this country if not a new sp. – It came to me some years agone I could do nothing with it at the time

— Syrrhopodon St Augustine Florida Smith Bolt, I do consider this a new species the differences between it & S. Floridanus are so great that you would warranted in naming it as new species I do not think the locality a more dry & sandy position would make so much variation in a S. Floridanus It is likely that this plt is only to be found in such ~~a~~ local locations the S. Floridanus luxuriates in, which I believe to be a damp warm rotten wood in shady places.

I do not want the Gibbery specimens returned I mean those that I returned to you – If you want any of the others from him & which I have returned – I will send them to you you can see by my list which I sent to you what the specimens were

When I go to the Bull Hub. I will look among the Anomodons for the likeness of the plant I sent last time

I have this week at leisure been going through Prof Macoun's Consignment of Brit. America – will sketch any new & send to you – – – – –

Very truly Yours
Thos P Sereno

94 94 Cambridge Jan 5 1876

Dr Sereno Esq
My dear Sir

Your favor of the 28th with endorsements came the day that I mailed a package to you containing the set of Hall's Organ Music & some of Macoun's specimens which I ~~hope~~ doubt not is received

I now send on you two Sketches of those returned Mosses which I hope will be satisfactory on the points needed.

— Cryphaea – – – Illinois S Hall 1867

The four leaves (outline – show the areolation rounded or somewhat ovoid at the upper portion of the leaf and becoming a trifling more oblong in the middle & smaller and more the base still smaller and more rounded at the base display a row of compact round or nearly square cells – the perist of the leaf is indistinctly serrate and in most of the old leaves hyaline in one considerably so down the leaf this may be the effect of age yet I could see in some of the young branch leaves the cells at the very apex transparent The smaller leaves of the branches were the same shape as the stem leaves – I gave you Mitten's diagnosis of his C. tenella on the request I could find in his S. A. Musci I knew the nerve was too short I do not know what sub-stratum is, more than yourself our plant has a row of flattened rounded cells – You will find the perichaetial leaves of the best fruiting specimen detected on the back of the same sheet has the stem leaves they are all nerveless slightly very slightly falcate – the cells larger than the stem leaves narrow oblong than the one & perhaps more the smaller I did not draw. this I sketched with leaves under a film of glass & may have flattened them & therefore no convolutions seen – I took another and younger specimen which I drew on a separate paper & have pasted it to the first the sketch shows it before taking off the leaves – I removed the leaves and sketched without the film of glass and the leaves are concave some, but not convolute then perichaet on on the back of that slip of paper – I had drawn a male gemma which I left there & it is marked with prominent papillae. The leaves have feeble papillae on the under surfaces – I was fully aware that Mitten's diagnosis would not suit our plant but it was

95 95

Cambridge Jan 20 1875

Dear Sir

Your favor of the 15th inst with enclosure of returned Musci came yesterday evening — which I opened and laid aside having under investigation the material of pages 81 82 83 & 84 of our Enumeration which I desired to finish. I will now look into the letter & examined all the Musci etc. I now submit the enclosed Musci with the Enumeration with my remarks thereon

— 475. Fontinalis squamosa — I found some marked F. squamosa in Sull. Herb. which he marked F. Dalecarlica — & which I found right. The Drummond F. squamosa he determined in all the sets to be F. Dalecarlica so that I believe ~~it has not~~ F. squamosa has not yet been found in this country

— 479 ~~F. Sullivantii~~ F. Lescurii Var? has been named & described by Lindberg as F. Sullivantii I had copied on the Enumeration p 82 from Sullv. slip — but have concluded to send the slip with specimen (F. Sullivantii) also Lindb. pamphlet describing it — which also has other species — these you will return that I may replace them in Sull Herb. —

— 481 F. deitichii var? it is made F. filiformis by ~~find my remarks about this variety~~ Sullivant & published by Austin I have ~~stated~~ given on the Enumeration what is said of it —

— D. sp. nov. Upton & Errol Dam 7 P Legis I compared this plant with the Ingraham D. pallescens Mus. Exsic. & with my D. pallescens from Nova Scotia and it proved distinct so I sketched it I send the sketch — It is different from Boreal D. pallescens ~~The~~ aspect is distinct from any other. I had not looked at the Drummond specimen until I had drawn the sp. nov above — I found

the Drummond plant had leaves like mine but the perigonal teeth had 10-12 outside teeth instead of half as many in my plant and the inner perigone cilia were connected at their upper portions — and is not glory in mine — I send sketch made by camera and specimens of my Upsilon & Errol Dam plants — also of the D. nivea set and my Nova Scotia
You will find sp. nov. at the bottom of page 82 of the Enumeration —
May you will think my s. nov is after all D. pallescens — —

— 486 D. Swartzii I have made 4 sketches two of your D. Swartzii of the two forms — I ~~suppose you have~~ sorry you my specimens of your plants from which I made the sketches
I have also sketched the sp. from Austin N.J. also my sp. from Andover with the plant attached — you can determine the matter whether H. fluitans or not —

— D. subdeliforme Hmpe — I send the specimen from Sullivan Herb — the leaves of which I have sketched it is from Arkansas but where it is described I know not it is not in fruit —

— 488 Cryptoa pendula I note by your last letter you make new species

— 489 Cryptoa from Illinois Hall you ~~have~~ consider a new species

— 491 C. inundata is Dichelyma subverticillatum — I send Prince Nuwied's specimen from Lindby and Sullivant's slip of this sp. both of which please return that I may replace

— 492 Trachypus — find full remarks on p. 84 of Enumeration — I have copied on a leaf the diagnosis of Trachypus R&H and send

I send also — "43 Russel" Rec. mar 1857 Meteorium nigrescens "Florida 1853" which please return and a few stems of the same species from Mackinaw — if you can keep this there being abundance left of this — ~~I had it~~

Cambridge Jan 23 1877

L. Lesquereux Esq

My dear Sir

I have examined the Mosses collected in Maryland by J. Donnell Smith and find them to be — viz

— "Sphagnum acutifolium" is Sp. fimbriatum — having all the characteristics as far as Burr. Sp. can furnish —

— "Sphagnum recurvum" ! Eight —

— "Pylaisea" is Pylaisea subdenticulata very poor condition — and is distinguished by its broad basilar membrane of the inner peristome and the longer rostrate operculum — Also in same packet Hypnum polymorphum Varium —

— "Hypnum reflexum" is not that species — In my opinion it is Hypnum pseudolum —

— "Hypnum cupressiforme" var. is not that species. I have made a full sketch and it is certainly new sp. among my large stock of H. cupressiforme I found one in appearance to the naking eye has the glossy aspect but becoming brown — your plant does not so turn — I send a sp. of mine (the only one like to yours) I regret your plant has no operculum etc. — ~~that~~ I need not make remarks the accurate sketch tells all —

With regard to the names of the new Dyrshopodon & Cryphaea — I might suggest for the Dyrshopodon for Entaxeie — viridis — tortas — intortus crispus with or any other you may think appropriate

For the Cryphaea — gracilei — excelsi or any other that may suggest itself to your mind

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Mucous Specimens —

— No 57 "C. strictum" — I have sketched this it is not a gracillescens — It is the broken stems that

suggested D stridum. I could get only two unbroken leaves — I have made a sketch under the camera — capsule — leaves & pinnule —

— No 68. — I think is a Dicranodontium — and yet it does resemble the above in some points but it is more slender —

— 197 Orthotrichum is speciosum —

— 34 Sidigeria is not S. recurvans — this specimen came from Prof Macoun and is a different plant I have concluded that it is S. pusilla the leaves are not all obtuse and too pointed for S. denudata

— 70. Dicranum longirostre! —

— 190 Zygodon — differs materially from Zygodon reperiens — vid sketches — I think it new —

— 81 B. Brownianum Lesq. —

— 123 is an B. micronifolia I believe I have not B. alpina but looking into the plant more critically I have concluded it B micronifolia — longer operculum and longer leaves etc —

— 33 Amblystegium near Sprucei probably a var. I have sketched in full it is not an annomalodon

I return all the plants to go with the others from Prof Macoun you will keep them

---

Keep the Fanarine from Gibbons

The pencil sketches you return & ask about are those made from Dr Mooser plants = Dicranochaetium and Hamulus corresponding with his specimens to go with those plants

The Orthotrichum Ludovicianum from St Augustine Fla is Dr Mohr's which I returned for him I suppose you may take a specimen

You need not return any notes sent

With regard to the Orthotricha I have a great stock and willingly will give you I submitted specimens of all that I had to Sullivant when he issued that genera I will get up a parcel for you — Sullivant has a large number in the Herbarium which I have only cursorily looked at — also there are in the Herbarium numerous slides of all his species

A list of Nelly Texas mosses I made and sent to him also a sketches of Bruchia flexuosa & Texana

I offered to send any he wished the Hepatics etc I have not yet gone over I think it will be some time yet before I can examine them

whereas the Pterygoneurum filiforme is far more slender the leaves widely set on the stems: the stems longer & delicate etc etc. so I am of opinion that the Leptohymenium cristatum is a truely distinct sp. & should stand

The No 2. Leptohymenium is now under consideration and sorry there are no fruiting organs —

Gen: Pleurophyllum

— X P. Lucens — Brid — on decayed logs deep shaded ravines Oregon Hall —
you will find a specimen of this in Halle's set of Oregon moss which I sent to you recently marked 7 which please get and look at it — I have made a sketch which see my specimen has an inferior capsule

— ✠ Fabronia N. S Athens Ills Hall on trees
— F. octoblepharis & sketch sent } Penn^a
— F. Ravenelii? " " } Penn^a
— F. Wrightii sketch " " — Penn^a —

— 526 Myurella apiculata I cannot find this species in any of the Drummond set
✠ this plant in the leaves resembles much the F. gymnostoma but the peristome & F. Ravenelii —

— A plant from Mr Wolf Illinois 1876 which has much resemblance to Myurella apiculata but it is not that species — I send the sketches made when it came to hand last autumn and a new sketch ~~to-day~~ under the camera for your determination —

Very truely your old friend
Thos P Jones

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Cambridge Feb 9 - 2 - 1877

L. Lesquereux Esq
My dear Sir

Having 2 sheets of the Enumeration ready and having a number of additional plants which will require your attention I send the 4 pages, 85, 86, 87, 88 on which you will find to be inserted

— Neckera undulata Hedw. Enterprize Florida Daniel B Smith Esq 1860
I send all the loose plants (good specimen mounted in my set of Musci) and a sketch

— 499 N. oligocarpa — this plant I collected in several localities in the white Mts & fine fertile specimens found Oct
I invariably found it on rock, under side of shelving rocks also on the ground under shade of rocks — Never on trees
the New Mexico plants are given on trees which I think is a mistake — My plants exhibited fruit — especially that from Deville — this fruitfulness led me almost to consider it a new species —

— 502 I got good specimens (infertile) from near St. John N. Brunswick —

— 503 N. pennata — There is none of this in Sullivant Herb. I do not find it reported in Drummond — I doubt its being found in this country —

— 506 Homalia gracilis — I find in Müll synopsis p. 97. Neckera gracilis — named previously would you have my specific name changed?

— 508b — Pilotrichum Ludovicianum C Müll
This plant — varies little from Sullivant's
P. cymbifolium. — I gave you sketches
of the P. cymbifolium the P. (Orthotrichella)
Ludoviciana — & one other (Pterobryum)
when I returned Dr Mohr's plants also
one the same (P. Ludovicianum collected in
Florida in 1859 by Daniel B Smith of
Philadelphia as to —

— 503b N. Pilotrichella Clintonii (Mohr)
I know nothing. I should like to exam-
ine Dr Mohr's specimen Can it not be
had on loan? — You will observe what
I have written about this No 503b onth
Enumeration (85) — If it is so near to the
Pilotrichelum it should be placed near
it 508b —

— 510 — M. nigrescens you will read
my remarks, about this (Tracly pus)
on page 84 of the Enumeration and
on page 95 of my letter —

— X Leucodon sciuroides Own Sand Roy
I have made a sketch & sent it with a
specimen — which in my judgement is
that species — It present somewhat of
~~514~~ the characters of Leucodon brachypus
under the microscope, but not so under
the naked eye —

— 514 — Leptohymenium duplicato-serratum
I got Hampe's original specimen from Sull Hub. Ohio
and upon comparison with our Pterogonium
gracile altho' of much slender proportions it
is yet in structure and aspect identical — But
on the same paper at the right side of it there
was another species totally different

which I have put (all of it) in a small
envelope and marked Leptohymenium N. Sp. No 2.
to identify it and send herewith and
I have sketched leaves of it & send sketch

— No 2 (from Leptohy: duplicato serratum)
and which you will observe at a glance
is not L. duplicato-serratum, nor L.
cristatum — The is less broad the serra-
tures are much less prominent than cristatum
the areolation is decidedly much larger than P.
gracile (L. duplicato-serratum) the alar cells
closer and more obscure the nerve in
some younger leaves shorter etc. etc.

— Leptohymenium cristatum Hmp
~~not finding you had~~ I got the original
of this at the Hub. & I send it now
not finding that you had noticed it in
Our Enumeration I sketched it on a
large ~~leaf~~ sheet of paper the leaves only (I did
wish to despoil the specimen by taking off a
pinnule) — I then thought of your Pacific Coast Mus.
and I then find it a var. of Pterigynandrum
filiforme to my surprise — So, I sketched
on a smaller paper more leaves of it and on
the same paper leaves of the Pterigynandrum
filiforme — which you cannot fail to see dif-
fers very materially ~~both~~ the leaves of both
drawn under the precisely the same power
the Pterigynandrum was from No 348 Mus.
exsicat. — The aspect of the two plants are
most decidedly distinct — the leaves of the Lep:
cristatum very closely imbricated or much stout
& broader the shape, size, curvedness of the
apex with the ~~strong~~ strong deep serratures,
strong long nerve and very large cells &
especially the far more numerous obscure
alar cells surely makes it a different spec.

as Sullivant remarks in his paper Wils: name had no diagnosis to it — it follows that Mitten's description stands being prior too — to Ind[?] —

In the same work at page 239 is —

26 Grimmia geniculata (Sieg.) (Br. & Sch. Suppl.) Hab. ad Danae fluvii, medio sept. 1860 Schmidt: ad Dei, fluvii, 7. Maji 1861 Sieber — Calera loca nobis ad hoc tempus nota sunt, Moquie — river in Oregon (Oregon Boundary commission 1861 & Lyall) America (Maximowicz), ins Sitka (Kastalsky Series Mutiny)

When you take up Trichophis pilifunda bear in mind to introduce the above & Hab. Sitka and Moquie river Oregon

Page 91 enumerate

— 544 & 545 is reported in full in the "Flora" 1845 No 5 and 6. and which were omitted in the Torry Bulletin when Bry alvalenia were inserted —

The genus Trichocladium is described and then 5. Hypnum (Trichocladium) leucobladium C. M. 6 Hyp. (Trichocladium) cor jerusalem —

Hab for 544 is Oregon Oakland Hb. C Mohr

" " 545 Oakland Oregon Series Hb C Mohr

Some time ago I examined C Mohr's mosses among them were these Trichocladia — I kept only such as he marked for me — I think I could not find T. cor jerusalem — I understood you had the "Flora" if you have not — I will send the no. which has this —

— 547 Th pygmaeum is found in Phila[delphia] on (Paximont Park) northumpton Co & by coming to New Jersey Closter N.J. Austin I mention these localities as you have not indicated any —

— 548 Th gracile I have this species from Wolf Mt. New Jersey Penn[sylvania] — western states, South Car. N. Car. & Ontario distribute very variable — I think there might be no any of them

— var: Ravenellii — I have made sketches & have sent hence and comparing it with a specimen of Hyp. microphyllum from Cuba named by Mr Sullivant sketched (leaves only) No 99 — I on the same alternately 412 of S & L Hep. & find and finding them so variant I concluded that 4 miner lichens must have gotten into the packet — I then looked up another specimen which I sketched on the back of the slip which is the Th. Ravenellii or Th. microphyllum — I do not find in C Müller Syn. that he asserts that the Th. Ravenellii is the same as Hyp. microphyllum — I have a H microphyllum? collected by H Wilson which I made out to be that species but as it is not an authentic plant I do not vouch for it

Guide

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Cambridge Feby 21st 1877

L. Lesquereux Esq

My dear Sir

I wrote to you more than a week ago — informing you of the finding the Package of Venezuelan Mosses collected by Fendler — I trust you received the letter —

Yours with the returned mosses of the 12th inst came to hand in due course — I will after despatching the present communication look thro' such as are needed and report —

Since our discussion of the two Cryphaea Ills I have found fruiting specimens in Hall's last consignt —

— (152) Cryphaea N. S. Illinois Hall leg

I have sketched in full so when the name is given it can be described I send spec & sketch —

Lekea Austinii

And now I continue with the Enumeration

Page — 89 — of Enumeration

— 526 (on page 88) Myurella apiculata is not in the Drummond's sets that I have access to — Schimper does not report it as in Drum — C. Müller only says Am. Septr I have is unquestionably from Bear river Common Uintas see specimen & sketch —

— 527 M. Careyana several localities added

(— Hobrodon Notarisii — found in Ohio —)

— 531 — L. microcarpa If Sullivant's examination & determination be accepted as given on the Enumeration it will have to be reported as a variety of L. obscura

— 532 L. Austinii I have had fruiting from Wolf

— L. nervosa Nyr: Bry Eur: II 472 — I have found it twice in fruit in Wolf Mts very frequently in sterile state James Nutcrime Co NY Austin — Ontario Roy etc —

— 533 L. dentulata — I have found on Rocky

— 534b Liskea? brachyptera? — I cannot find this in any Drummond's set unless the No 219 hennick (from one set) is it — I have sketched the leaves and submit it — It is labelled Hyp catenulatum — Wilson says it "certainly a distinct species etc — And Schimper say "is entirely distinct from the European plant" — Now if it is not the Nutten plant what is it? —

Liskea (Pylaisia) Wollei Aust
Liskea? Mannii Aust

— In looking into my set at the same no 219 I find a plant totally different from H. catenulata — (Barry) I sketched the leaves for your determination

Page 90 of enumeration

— 536 A. longifolius — This species has not yet been found in this country — at least I cannot find it mentioned as being there —

— 538 A. viticulosus — I submit a plant from Ontario Mr Roy finding — It has the aspect of A. spiculatum — but compare well with A. viticulosus — which is it?

— I get at Sull. Herbarium — a packet from you marked Anomodon californicus sp nov.

all the stock — 6-12
return some

Anomodon? Sp. Nova?
California — Belenider
Mt Diablo? see note 6-12

Cat. Pacific coast No 203
You have omitted this species why? see sketch of leaf

— Anomodon Nanaimo — see sketch & plants what is it? —

— Anomodon — Owen Sound Bay see sketch of leaves — what is it? —

— 168 — 6-12 — Anomodon sp. nov

Rocky stree stumps Mineral River at Clark — see sketch — I think it L. obscura var but No 539

— 542 — Ps. catenulata — I do not know the locality of Inglebrough Mountain NY I asked a cousin of Mr Howell (same name) a few days about this locality but he could not say where it was — all he knew was that his cousin lived in the state of New York —

I submit a packet — 114 Ps. catenulata? Uintah mts — July 5 Watson leg which I could not make any other sp. of it — it corresponds somewhat with the delineation in BBS. but not with foreign specimens what is it? —

— 542b — Ps. atrovirens Brch & Sch. Bry Eur. T.

Hab — Falls Niagara on rocks — Lake superior Macoun Ontario Roy — I find I have omitted to sketch these —

— Ps. radicosa Mitt = Hyp. radicosum Sp. No Bryol. 49 "parallel of lat. from Sin Soc. XII p. 31.

Hab. Banks of the Portage river Bolton. Drummond & Alaska ~~etc~~ Colorado Bridger

No 225 Hypnum tenax Drummond about this sp. I submit a correspondence which I had with Mr Sullivant I submit his diagnosis with a copy of my letter to him dated C. Dec 4 1872 —

I find the same somewhat debauched of his diag in the Sull: Herbarium —

I send Packet No 225 Drummond — from my set as I sent it to Mr Sullivant — also a sketch of the leaves — also No 226 of same of my set — which should have contained N. (Anomodon) attenuatus — but in error a variety of Hyp (Pseudoleskea) radicosum — and the Packet from Alaska Mr Harrington leg which Sull: as well as myself pronounced to be Ps. radicosa H — of course you will return them —

And further on this matter —

I have borrowed of Dr Gray a copy just rec'd from the Author of Contributio ad floram cryptogamam Asiae Borealis Orientalis auct. J. G. Lindberg 4to (Societatis scientiarum Fennica Die Feb 1872) Helsingfors 1872 at page 209 — He has in describing & speaking of — Sematophyllum (Adelphodon) robustum N. sp. Lindberg

Sematophyllum rigescens (Wils) B.S. Nullo modo ad hoc genus pertinet, sed Pseudoleskae atrovirenti per offerit, ast quod in nota *) demonstrare volemus . . . . . .

*) Quum Rigescens mensis, valde ad hoc tempus suspecta, specimina authentica sat complete ponideamus descriptionem ejus publice mavemus debemus.

Pseudoleskea rigescens (Wils.) . . description

Hypnum tenax (Non Hedw) Drum. amer II No 225 (1857)
Hypnum (Rigodium) reflexum C. M. Synop II p. 408 & 399 p. (1857)
Leskea rigescens Wils. Mss. B.S. Bry. exsp 664 (1857)
Sematophyllum rigescens B.S. l.c. Hypnum (Sematophyllum) radicosum Mitt in Jour L. Soc. VIII p 31. (1864)

Cambridge Feby 23. 1877

L. Lesquereux Esq

My dear Sir

In looking for Musci not in the regular Sullivant Herbarium I opened the lower closets (below the arranged Herbarium) among numerous packages of Masses etc etc small packets & larger from various sources on the lowest shelf I found a large package of Musci marked Venezuelan Musci collected by Fendler which I took down and opened & found it contained about 150 packets and beautiful drawings of unnamed Musci — This I infer is the package we searched for last Sept at your request. I called Dr Gray's attention to it and asked him what was to be done. He remarked write to Mr S. and inform him of its discovery and if you instructed him to send it to Mr Müller he would do so, but not thro' the Smithsonian Institution but direct by a vessel to . . . . which would cost some thing — He had no doubt but that the package would be received safely by Mr Müller and come safely back from Mr M —

Probably as it has been so long delayed that you & Mr Schrader would prefer having it sent to you which if you so desire it I will send it by Express. Let me know —

In looking thro' the Sullivant Herbarium a few days ago I found the package of Pterogonium (Pleurogynandrum) filiforme ~~which should~~

from California collected by Bigelow which
I have no doubt is the specimen examined by
Prof. Pavie Nuttall and Mr. Sullivant which Mr. S. pronounced
to be P. filiforme verum which packet I
brought home to verify and upon its exam-
ination by microscope I found it to be the
Leptohymenium Oustatum duplicato serratum
of Hooker and of which I have made a full sketch
and send herewith and a packet of the plants
(the Bigelow has a large quantity of specimens)
I wish to remark that the P. duplicato-serratum
has its leaves compactly imbricated on the stem
and on being moistened stands out squarrously
and the stem itself is of a light green color in all
instances I examined — whereas the Pterygoneurum
filiforme has its leaves much more sparsely im-
bricated less pointed not so strongly duplicato-
serrated smaller and only two rows or so of
alar cells and not so strongly nerved and the stem
on removal of the leaves are in all cases that I
have examined of a dark red color I have exam-
ined more than a dozen of and found at least
more than half that number of foreign specimens
Mr. Sullivant probably has not examined the plant
since he first got it in about 1854 I think
if he had recently looked at it he would not have
marked it verum
I have several additional plants for the Sumnerian
and some on it will have to be omitted I have as
yet not gotten thro' the Spages in hand will send
them when finished
I have copied for the Sinnen Hafe' degrees of 2 & 10
and if you have not I will send to you —
I am sorry to learn from Dr Gray that you have
been so unwell and suffering I hope they will find
you better & able to do work

Page 91 continued in Enumeration

549 Th. pallens? Lindb. I have sketched 141 Hyp. varium no 2. near St Louis from my sol of Drummond which appears to be different species ~~but find that~~ there are some of the other nos. of Varium – No 1 & No 3 mixed in ~~the~~ with this – I think there are some of the Th. pallens ~~there~~ compare sketches of Th. mucilaginosum var pallens Lind. which packet I got in Bell. Herb. and send it (to be returned to Herb.)

551 Th. tamariscinum – There is confusion among authors with regard to H. tamariscinum & H. delicatulum – C. Muller describes the H. tamariscinum as H. delicatulum as B & S has it – and H. delicatulum as H. tamariscinum as B & S. has it –
A pamphlet by S. O. Lindberg has just been rec.d by Dr Gray in which Lindb. makes – published 1879. Nat =
1 Thuidium tamariscifolium and as a synonym Th. tamariscinum Br Eur fas. 49–51. Musc. p. 7. no 2 t.
2 Th. (1852) (and only) Habit. Europa –
2 Thuidium delicatulum (Dill. & Hed.) Mitt. Synon. Hyp. proliferum H. tamariscinum et Th. tamariscinum Auct. Amer. & Brean – Habit. in America Boreali –
3 Thuidium recognitum ~~Lindb.~~ (L. Hedw.) Lindb. – Synon. Th. delicatulum Br. Eur. fasc. 49–51 Mon. p. 8. No 3 t. 11. Habit. in Europa et America ~~Boreali~~ Boreali –
Probably you have this pamphlet of Lindberg and can refer to it – Musciphilus Musorum secundus.

553 Th. sectum var. de Th. vestitum Austin is the same that I sent published in Mus. Appal. No 301 as Th. sectum var. vestitum ... I took a specimen from Mus. Appal. and have sketched it and as the points of difference are mostly in the perichaetial leaves I have duplicated sketch from another of his specimens to which I refer I send it* and I have also sketched specimens in like manner from Mr Mex. exsicc. No 409 – selecting sp.n with an erect capsule as the distinguishing character – (Austin had no par in different sp.n to Mus. Appal. of this – You can compare & decide whether distinct species – The peristome I could only get ~~[illegible]~~ erect capsules in which the cilia are more ~~[illegible]~~ than in the Austin sp.n – the perich. leaves are evidently more ~~[illegible]~~
* I send also a packet which I got from Austin some years ago which seems to be the

556 Th.? remotifolium Bres. Sch. II. t. 200. There must be a mistake in C.M. reporting this from America occidentalis = ~~the~~ same as Hyp. Hagenbachii C.M. 1447. – Should have been Am. meridionalis – I send a specimen of the H. remotifolium Bres. Schr. ~~[illegible]~~ from my mounted specimen of the

Spruce moss — I did not draw the capsule as I have only one other ~~of the~~ I think you will see that it is not a Sphidium — I was struck with the immature perichetial bud so drew it hastily —

(— Hypnum ramulosum Hedw. I send a specimen from Monterey California you will find description in C M U. p. 486.)

— I call your attention to Sphidium erectum a new species published in the "Flora" found in Florida by Dr Chapman — I have never seen it it is not in Gr Herb

February 28 1877

I received your favor of the 19th inst just as I was going up to the Herbarium — I have not ransacked the entire Herb: yet: when I go to it I generally ~~pick~~ down what I come in search for — the Venezuelan Parcel ~~is~~ on the lowermost shelf under some other parcels I looked carefully into the lower case but expecting to find a very large package I did not pull all out — I also called upon Mr Watson the director to look it up (as he put all items away) but he could not find it — I discovered it upon looking for some out of the way item

I have now found the Catalogue you made & of which you write and it will guide me in future — I am truly sorry that it has so happened

It would be unfortunate that such fine duplicates should be lost to the Herbarium — and yet the determination of the specimens should be effected by some competent Bryologist

I will look at the two mosses that come in the letter as well also those referred in your previous letter — I have worked industriously over the last 4 pages of the Enumeration Hartwick sent you will find interesting materials in their consignment or I will be greatly mistaken

With regard to the Pterogonium ~~Leptohymenium~~ ~~and Pterogonium~~ ~~terum~~ I believe it to be a variety (commeronum) of P. gracile — but I do think the Lep crestatum with an invariable strong nerve is distinct — I do not by any means insist that these Leptohymenium should be given in the enumeration — but I do say that the Pterogonium filiforme is entirely a different species from any of the Pterogonia or Leptohymenia that we have had under discussion

With regard to the Leptohymenia — these two of Hartwick might be noted as varieties of Pterogonium gracile and the Pterogonium filiforme stand alone

I recollect now ~~I find~~ that I had made out Encalypta procera from Mrs Roy's specimens — I will look it up —

I have hardly time to ponder over Austin's determinations of Macrocarpa now — I have Hall's Illinois plants to go third with and a parcel from Vermont just in —

Mr Macoun has not sent the balance of his collections yet

98 98

Cambridge Feby. 28. 1877

L. Lesquereux Esq.

My dear Sir:

I have re-examined the returned Musci and submit the results viz –

— Fontinalis filiformis – You say – if Sullivant has not published this – we may give it as sp. nov. I refer you to Musci appalach. p. 42. No 250 where you will find a diagnosis Sull & Lesq. Now! will that publication preclude our giving it as sp. nov.?

— Fontinalis Sullivantii by referring to the same you will find Lesq diagnosis (nearly) – will that be all that is needed – Austin gives Sullivi. Icon. muse. suppl. – Now this sp was omitted in the published form yet there can be no doubt the Sull. intended to give it in the suppl. –

— Dichelyma from Enrodam – I could not find a single capsule in condition to sketch – all are immature or too old – the operculum is long as represented in my sketch in your specimens and is correct – the leaves which are destitute from those represented in suppl. 1 Brch & Sch (which is in my copy of Bryologia so as it cannot be determined it will have to be dropped – I never sent you a specimen. I got it after you were interdicted the use of the microscope.

— Neckera undulata – I did compare it with an Canadian specimen – I had a doubt whether it was not Mitten's new sp. N. fercolata but by close scrutiny of its characters I made it N. undulata –

— Fabroniae – Hall's plant has areolation obscurely shorter & smaller below the middle of the leaf & the cilia of the margin is less prominent yet I think it that sp.

I have had from Rau his Fabroniae and after the examination I have returned all the specimens with the exception of some scraps

Mr's specimens were mostly in fruiting condition I made them to be — two Poetelleplanes from Del: Water Gap Penn two of same sp. from Colorado, and two P. Brightii from Colorado — And a barren sp. from Colorado — having a broader dentate leaf no cilia on margins shortly & rather abruptly acuminate and a distinct plant coming near if not identical with P. dentata BS. of Oaziba with a spec of which I compared it.

The only locality to add would be P. oetellepharis Colorado Brandegee

— Hypnum from Illinois Wolf — I find is the same as H. hispidulum by comparison. I now wonder at my short sightedness in not discovering this and that I should have thought it a Myurella

— Hypnum cupressiforme from Donnell Smith Barrett & Mr. I have sketched of the leaves of the plants you sent — from North Carolina & North Wales and I have drawn hastily leaves of various sp.s made in weights of the plants which sketches you will more readily see by taking out the specimen from the packet — You can scrutinize the plants from different localities — I have between 25 & 30 packets of Hyp. cupressiforme from various localities — I have selected those that resemble most the Maryland specimen and have come to the conclusion that the Maryland sp.n is Hyp. cupressiforme or rather now we have two species — which I have classed with H. cupressiforme the leaf sketches are made from the plants contained in the packet — I have many specimens of the second form of leaf — It might not be safe to make it a new species —

You will keep all that I send of this Hyp. cupressiforme — I have abundance of them and do not need them so keep them by all means or throw them aside

Specimens which came in your last one

— Trichostomum lineare? var. At first glance I thought this a sp. nov. and so I sketched its characters and when finished and on comparison with Sullivant I found T. vaginans — I believe it to be a very shaded variety of that species I submit my drawing for your eye and determination

— Cylindrothecium South Carolina 1850

I have made an accurate sketch which I send It may be a form of C. seductrix — I could not detect serratures on the margins of the upper portion of leaves I submit the determination with you

Specimens collected by Dr A. P. Garber at Key West —

— Barbula agraria No. 17 & 18 —

These plants compare with a delineation in Kiozy & Molkenboy Surinam & Venezuela Mosses — &c

— No 19. Garber Key West —

I have made sketches on separate paper of two plants which I submit for determination — would like to know what you make of the specimen

chiefly to be forestalled in naming plants by this course – If you are to have the naming of your own plants I would suggest that the name be determined and that it be not crispum.

He sends –

H. Bigelovii Aust. Florida Feb. 77
Macronema Donnellii "
Muehlenbeckia Warnei "
Dicranodontium Donnellii
Dicranum Macounii
Bryum – – – Colt Mts
Bryum Macounii Aust Mts
Barbula Macounii U.S.
Bryum Rauii U.S.
Sent to Lesquereux as Meibomia rigida
Deranella Canadensis Mitt
Archidium Rauii U.S.
Hechidium Lesquereux
Pucchia Donnellii
Pucchia Carolinana
Pucchia Sullivantii

with a long communication which I with difficulty deciphered

Now I cannot take the time to go over all the above – and I suppose the next journals will have as many as he can get published and thus try to secure fame by naming plants and give us the great trouble to work them out

I will now take up Darby's Florida plants and report
I would like to have time to finish Hall's Illinois plants
I have numerous days of the poor boy's work to do I am Very truly & sincerely yours Th. C. Sullivant

Cambridge Mar. 17. 1877

Lesquereux Esq
My dear Sir

You last letter 9th inst. alarmed me much. your eyes are again troubling you and you speak of abandoning the work – If you do really give up then all falls to the ground I know of no one to be connected with as for Austin that is out of the question so we must wait and you must not use your eyes with a microscope. I will do all this you must suggest whenever a sketch or drawings needed & I will most willingly make it and if writing hurts your eyes you must leave it – you must take great care of your precious eyes and if rest will avail any thing – you must take it I will have enough to do in going onward with specimens for the enumeration I have quite a number of Hypnaceæ to submit as we progress but rest – you must if your physician says so –

I have gone over the returned specimens & made some required additional drawing and now return them

Since my last of 28th Feby (98) I have been very industriously working up Hall's large Mass of Illinois plants and have gotten through 2/3d of them – You need not return the Hypnaceæ

I have copied Mr Sullivant's letter to me about the Pseudoleskea radicosa Mitt & send and have sent the papers on the same subject in Sull: Hedw as they contain much additional material which you will peruse with satisfaction – I add his rough sketch explanatory of the parts of the plant – one from Drummond – One from Mitten – One collected by Hall in Oregon 1872 (I did not that Hall had found it before) and the large fine sketch I do not send as it would be determined by folding

* All to be returned and replaced in Herb.

* also one from Austin from Wm. C. Gift 1872 marked Bryum ? sphaerocarpum var. Col. 1872 V. 55 with the above which is an rough sketch whether he considers it the radicosa or not is uncertain

— Leskea microcarpa I send a strip from Sul Hull about this skein, for your satisfaction to be returned

— Cylindrocarpon sideritis var? I have made another paper of sketches of several leaves showing the decurrent ~~[illegible]~~ these were selected from many stripped from the stems —

— 168 - 6-12. Anomodon ~~[illegible]~~ Rocky & Iron stamp etc I return this, with one of the old stem leaves sketched — I think I must have made the remark on the first sketch that Toney eye etc. — The leaves on this first drawing appear to have been from the younger stems and show imperfectly a transparent nerve —

— 6 Leskea (Thedenia) Wollei N.S. Austin I have drawn a leaf under my highest power for your satisfaction —

may be claimed as

(85) Bartramia Illinois Hull —

I send this from Hull recent parcel that you may recall it as Hull may have sent it to you or Bellini I do not recognise it —

may be B. adelphia

— Hypnum ⊗ Illinois Hull — An interesting scrap with sketch which you may ~~[illegible]~~ recognise —

I have several yet of Hall's collection My bal will submit them at the end of examination

The Botanical Gazette vol 2 Nos (Coulter) came to hand a few days ago — In it I find Austin has commenced to publish N.S.P.

— Cratoden minor s/n N. from Macoun so I looked up the 2 packets from Macoun sent to me and have sketched them & send 95 & 96 thinking that 95 was the one intended & I submit them & yet it may not be as I drove his is W. of Rocky mts

Vouch. for Austin

— Encalypta procera? Dun mountain Macoun

looks like it

This is the plant I think Austin considers E procera you will note the twisted capsule old specimen and the ciliate calyptra like E. ciliata

You have sent me ~~Cryptocarpa Raunellii~~ N.S.

— Cryptocarpa Raunellii N.S. Austin — ~~This plant~~ the diagnosis is in the Botanical Gazette I had sketched it and send the drawing I thought I would look again into Raunell's specimens sent by him to me 20 years ago — and which being in better condition I have sketched with the opinion on the back of the same paper & I believe the same species — I send specimen & return Austin

separately sent

Austin has several other new species — one Bauhula? Wollei (an Trichotemnii ad didymomitrium?) and others from stems and diagnosis with cetera desunt so he goes on the name — hap hazard — so as to secure the naming — and add incl. syn. Austin

— Pelotrichum Donnellii N.S. You sent me a stem of this which I had sketched and sent with his sp. — the sketch is on both sides of the paper — the first page is the lower part of a stem where also a side branch sets out horizontally and drawn at the side of this lower part — on the other page the main stem is continued showing the stem denuded of the leaves which is said to be flagellate?! — the leaves at the apex have bit and areolation totally different from Sullivant and Mueller's Orthotrichella cymbifolia & Sodomensis — and it is no Pelotrichum but more like a Lucodon or Hedwigia Cryptocarpa

I have the very same plant from Mirador Mexico by Dr. Sartorius 1845 & 1850 which I send. This plant I could not determine with certainty but took it for Bracnia Leibmannii C.M. 11. p 668 —

And now since I had made the sketches of the Cryptocarpa Raunellii & this Pelotrichum Donnellii I have received a parcel from Austin of 22 plants among them the Pelotrichum Donnellii & the Cryptocarpa (very little of) — and hypnoides crispum N.S. this is one D B Smith which ~~[illegible]~~ I sketched in pencil and reported on second page of 94 — and which I suggested you might name it hypn. contortum contortum crispum or what you thought but now Austin has from a Canon specimen from same section name it H. crispum N.S. Austin Now ~~[illegible]~~ I am so

100

Cambridge March 1877

L. Lesquereux Esq

My dear Sir

I have carefully examined Dr Garber's Florida Mosses and return retaining a little of some of them

The new plants are – No. 30 & 31 –

30 & 31 Hypnum thelistegum C Mull = Microchaetium thelistegum Mitt – Journal Linn Soc XII p 504 I have compared it with Wright's Cuban (Plantae Lanceolatae one) – I have made a full sketch of it – as it is new to this country It is not rare in the Bahamas etc Mitt. perhaps it is wanting ~~You will find~~ I have drawn all the opercula I could find, & several of opercula ones, and the rest of the paper I have drawn leaves and an immature specimen from my small Wright's Cuban No 125 to make comparison you will find the diagnosis in C Mid Syn. II p 269 –

Wright

Neckera — N. S. Florida Garber – The few stems (all of them) sent were in the pot of No 32 Barbula agraria – I have sketched 4 of the leaves – It is interesting, may be Garber may have more & finding sp. I should like to see it again –

No 25 Bryum coronatum – also B. platyloma

32 Barbula agraria

22 Octoblepharum albidum

27 Fissidens flaccidus

28 & 29 Schlotheimia Sullivantii

23 & 24 Thuidium gracile var Ravenelii

21 Hypnum albulum – which is now H. micans Sw (not Wilson) var albulum – Hy. fulvum & H albulum are varieties of H. micans Sw – These are sketches of some in same

On looking into my Wright Cuban scraps my eye fell upon a Bartramia tenella C Mull. which for selection I think is nearly the same as the Hall Bartramia and in my last – the capsules may not quite so round & the leaves a little shorter – compare & return –

and put up for you and now send

Some long time since I selected a number of specimens of Orthotricha from my Herbarium as I could not find yours in Sull's Herbarium and yours have been lost nearly all are from Mr Sullivant's duplicates which had passed under Mr Sullivant's examination — I have others of which I have not sent some of them in limited quantity but if any of them you desire I will send — you can learn what you need by looking over those now sent

I hope your eyes do not now trouble you of looking at them but that they skeletons fly for a more favorable season

Yours truly

Wm P. C.

Cambridge March 30 1877

L. Lesquereux Esq
My dear Sir

I have now worked up the Austin plants sent to me and have sketched them all, showing their structure accurately so that you need in no case use the microscope to determine them — I send specimens of the plants — sketches & I loan her letter to explain somewhat —

Archidium Lesquereuxii N.S. = 12 A. phascoides var. 2. Hab. New Orleans Drummond. — The sketch of the leaf only as specimens can simply be given plants and as he says = 12 Drummond A. phascoides I have sketched this on the back of A. Lesquereuxii.

Archidium Ravenelii N. Sp. On A. tenerrimum Mitt — I have sketched this showing the capsule spores (40 in number in the capsule that I took up) & as he says — on A. tenerrimum — I have sketched this from "11 A. ~~[illegible]~~ phascoides Sch. Drummond which Mitten says has A. tenerrimum is founded on the back of the A. Ravenelii N.S.

35 Archidium Ohioense B&S. I have sketched this from a specimen from B&S. Herbarium No 35 and henceforth the A. phascoides = A. alternifolium — I have sketched from my foreign specimen on the back of A. ohioense.

Brachia Donnellii N.S. I have sketched this on both sides — the entire plant under half my usual power but the leaves under the usual high power

Brachia Carolinae Aust & S. Car Ravenel this sketched the entire plant with half my usual power — the leaves calyptra with usual high power

Brachia Sullivantii (B. fissidens Sull Icon) 103 from Chester N.Y. this I have sketched the entire plant half the usual power & leaves on the back with usual high power —

Mnium Ravenelii N. Sp. Aust S. Car Ravenel this I have sketched with the usual high power —

Dicranum Macounii N. Sp. Pear River Macoun I send the paper containing the whole; I have sketched the leaves (there being nothing else) on one side under half power the other under the usual high power

Archidium phascoides var. 2

Archidium tenerrimum

Archidium ohioense

Brachia Donnellii

Brachia Carolinae

Brachia Sullivantii

Mnium Ravenelii

Dicranum Macounii

apparently

Macromitrium Donnellii N. Sp. O.F.
I have sketched this under the usual high power I cannot find it described in Mitten it falls under his section 2. Goniorotoma – There is another plant which presents a different aspect and apparently a distinct species

as mucronifolium

Bartramia Macounii N. Sp. Vancouver
I have sketched this under the usual high power There was no capsule only a broken pedicel I found the Antheridia under of the archegonia in B pomiformis –

Bryum Macounii Austin in litt. ad Sullivant
Here sketch under the usual high power. The areolation in all cases is accurate – the number of cells as they occur in the leaf –

Bryum Rauii N. Sp. – The sketch is under the usual high power cells as they exist

Bryum – Alpine regions Wh. Mt. Sketch under my usual high power

Sent by Lesquereux as Mnichofferia nitida which it is not. Sketched under my usual high power –

Pilotrichum splendens – This is sketched under usual high power – You can compare the areolation with my sketches sent you some time back of Pilotrichum (Orthorella) cymbifolia (Sullivant) & Sudovicum (Mitten) you will at once see the variance and say it is not a Orthorella besides no species of Hypnaceae has shown a disposition to fructification – but the species (Splendens) has a young female gemma I think the plant has more the semblance of a Hypnum N. Sp.

Pilotrichum Donnellii – After I had sent off the large paper sketch of this reputed sp. (P. Donnellii) I found my paper containing the original specimen which you sent me from Austin on my table I now send it, in it is my Miranda (Santonii) specimen (all of it) this plant (the Donnell & Santonii being identical) is not a Pilotrichum (Orthorella) areolation wide apart it comes very near to a Hedwigia and I wrote so to Austin when he asked me by postal card

not a Pilotrichum

that it was a Hedwigia and in answer at the same time about the Syrrhopodon Crispii N. Sp. that I had named it Syr. tortus

I also informed him that I Donnell Smith had sent plenty to you and among them you had 2 new Sp. Syrrhodon & Cryphaea pendula –

There are 3 other papers from Austin that I have as yet not had time to examine and sketch Decranella Amoenum Mitt Dura nodentium Donnellii & Hypnum Bugantenum Aust – also Decranella fragillifolia Lesq

You now have sketches of five or six new Mus. Hepaticas from Austin besides the 3 above you have B Hallii – B texana etc made and sent some month ago – you can now in detail compare with all

Do you consider Cryphaea Macounii a good species which I sent in my last

Austin wrote me by postal card some days ago – for me to determine those specimens which he had sent to me as he had sent diagrams of them to be published and he wished to alter the proof which would be sent to him for a revise – I have seen no diagrams of all those mentioned above

I would be greatly obliged if you could glance over the sketches now sent and give me your opinion soon –

I received to day a small package of Mus. So Papers of Mueé from Hall –

I hope this letter will find you in better health than when you last wrote I do not wish you to use the microscope on the specimens now sent If the sketches are not complete I will make them so whenever you suggest

— 37 & 38 Barbula agraria (alike) I have sketched this — also the former No 17 & 18 of Dr Sauber's Barbulae — in actual they appear quite different in sketching no so much so — yet No 17 & 18 have broader stylus-pate leaves shorter pedicels less broad perichet leaves of different shapes You can see some difference — the leaves of 17 & 18 spread out when moist more than the others —

— 40 — Hypnum Chamnum (Hypnum) Stelstegum

— 41 — Stereophyllum cubense Mitt — Hypnum Wrightii Sull.

— 42 Hypnum Wrightii & Leptinia sordida Mitt

— 43 Fissidens sp. nov — I have sketched this — you will observe that it is branched — some 3 or 2 branches — I could not find male flowers but infer it to be dioecious as there are not much of it I did not make in search for antheridia — if ~~more~~ I may wish more in search ~~send back the packet~~ that I may search for it —

Fissidens Bryoides

— 46 Pilotichum cymbifolium unquestionably — ~~mend not~~ Pilotichum Donnellii

— 50 — Hypnum — I have sketched the leaves and it resembles much Hypnum Ravii

I trust you can get daylight time occasionally to take glimpses to examine the above sketches and determine them also the plants sent on the 13th May 1002 some two Wilsons etc —

Very truly Your friend
Tho P Sprague

102 102

Cambridge April 13. 1877

L. Sargent Esq
My dear Sir

Your favor of the 9th came with the enclosures 2 days ago — when I was about finishing Hall's consignment of Musci — This work I have gone thro with — some to examine — There were upwards of 200 and every one of them I examined with the microscope My eyes have become so inflamed and so sore and blurred that I will have to lay aside the Musci for to recover them I have unremittingly used my eyes during daylight 6 days in the week for months —

I am heartily glad to know you are better — I will lay aside the returned Musci for two days when I will look thro them — also the Dr Garber plants and report as soon as I can

The Orthotricha — sent for yourself — were labelled as Mr Sullivant reported them I had observed that O Pulvis = O. cupulatum & Sup Scow. I can supply many other species in limited quantities if you will inform what you need

The plants selected from Hall's consignment were for yourself you expressed a wish to have a portion of his plants in a previous letter I therefore made the selection for you — I could not duplicate with yet a few I did send the names of all of Hall's plants to him according to his numbering but none of the specimens presuming that he had retained duplicates as by number — am I to send all back to Mr Hall — Mr Hall never mentioned that I was to return them

In looking into Hampe's plants at Hall's I found ~~the~~ the two following plants which come within our territory viz —

— Weisia Rugliana Schp. Florida by Rugel I have sketched it and submit to your eye with the packet to be returned & replaced in Hall's

— (24) Funaria acuminata Hedw California Brewer — I have sketched this at half the usual size — (which I accidently found I could do by my microscope) specimen to be returned

In going thro' Holly plants I met with novelties which I stopped and sketched viz. —

— (53) Leucobryum Floridanum (Lam.) — new to the Potter Cab. Sensibly — It differs as you will observe by the sketch from L. candidum — Some of the latter turned up after this sketch was made & the specimen pressed

— (3) Weisia n. sp. Nashville (probably Mosho) Rim Kansas Hall leg —

— (16). Weisia n sp Vernon Co Mo. Hall leg

— Weisia Wolfii n. sp. Canton Ill Wolf leg
I have made a sketch of this under the camera and send it for comparison to you —

+ — (55) Physcomitrium accumulatum Mo Hall — I submit this sketched accurately under the camera half the usual size of my sketches —

— 21 Bryum — Fulton Co Mo. Hall leg
Bry carneum — Is it B. pulchellum or B. carneum?

— 8 Thelia Sericea? — } I have not sketched
— 4 Thelia asprella? — }

— 19 Thuidium Vernon Co Mo Hall leg
I do not recognize this

Austin is out with another paper of new mosses in the Coulter Gazette —
His Pilotrichum Donnellii he has withdrawn from what I wrote him — and which by the type of Meteorium (Rhacopilum) nigrescens — and is found much touch —
He has withdrawn our Syrrhopodon torlis
And Eaton has published in Botanic Gazette as new to U.S. Pilotrichum undulatum — and Neckera undulata —

103

103.

Cambridge April 20 77

L. Lesquereux Esq
My dear Sir — I have looked over those mosses returned some nine or ten days ago and have noted your remarks thereon and prepare to report on the following viz.

— Bryum Macounii — This plant is distinct in areolation though very much from B. minutum (of which I have a very small specimen from you —

— Pleuridium Ravenelii n. sp. Austin
I have sketched this and it is distinct from P. stramineum Sing which I have sketched on the back of the same paper and send my specimen so you will readily see where in they differ —

— Pilotrichum Donnellii that is Meteorium nigrescens unquestionably and Austin acknowledges it to be dent. species —

— P. splendens is not the same that is a Hypnum which I informed him & he guesses what Hypnum it is

Your remarks on the rest of Austin's New Species I keep for ~~them~~ are ~~I have to be~~ are correct & I keep them aside for reference —

— Dicranum Macounii and is Dicranum elongatum it is identical with your specimen
Austin has published several other new species in the Coulter Bot Gazette —

Dr Sauber's Florida Mosses are —
— No 34 Hypnum microcarpum
35 H. microcarpum & Leptodon viridulus

Cambridge April 24 1877

L. Lesquereux Esq

My dear Sir:—

Your letter of the 15th I have held under consideration. It has taken me by surprise — I was not aware of the situation which you remark that you are placed in and that your engagements were of such a nature — that your whole daylight time was thus engrossed — I know that you cannot or ought not to use your eyes by night.

It does appear to me that help from you in the preparation of our Synopsis is at an end unless some plan can be devised to secure your assistance in day time — there is so much yet to do in preparing descriptions in ~~general~~ stating the precise points, and no more, to have each just so explicit as to have a clear yet concise diagnosis which no one can do as well as yourself. I feel like ~~giving up~~ abandoning all and let ~~all~~ the work go.

I have been considering the matter of your requesting Mr Austin to join us in our work — we both know him so well that if in partnership he will be most difficult to manage and will give us much trouble — He will claim and insist that his notions shall be adopted — and I fear he will be obstinate.

We will have to go over our whole work from the start and indeed at the beginning almost — He will demand that his new genus Micromitrium be admitted notwithstanding Sullivant has shown that it cannot be, and that his (Sullivant's) Nanomitrium must take its

place - (now with regard to this genus as published by Lindberg I do not really know your own views, I called your attention to the pamphlet and sent it to you but you have not alluded to the subject) Mr (Austin) has notions of many well established plants as seen in his Musci Appalach: which we may not accord with

I have unbounded confidence in your thorough knowledge of the Musci that I would implicitly adopt all that you proposed especially as you say in correspondence with the best foreign botanists, and I doubt that I could so willingly do with regard to Mr Austins ideas -

I have had an interview with Dr Gray upon this subject - I read your communication to him - He appreciates the difficulties and he thinks if we could overcome ~~[illegible]~~ dislike we might invite Mr Austin to join our copartnership and he is not sure but that if he be admitted he might be tractable as he would have full sway - entire control of the Hepaticae to be published at the same time with the Musci

He suggests that if he be asked to join, you must lay down certain restrictions or rules for his ~~guidance~~ compliance - He must stop publishing his new species and whatever is new it must not be published unless in a publication come out and appear first in our synopsis under joint authority - and that nothing shall be admitted without the approval of both of you If some arrangements could be effected in this matter - He would be a great help to us no doubt as he is a close observer has an very good eye if he could be brought to yield his opinion we might go on together

Dr Gray would write to him and issue his mandates

Is there no possible way of arrangement with the party under whose you work on Paleontology by which you could devote a portion of your time to the synopsis; could it not be so represented to said party that the portion of time asked for, would be only for the advancement of science.

The Torr. Bulletin is just in - and it contains 149 new mosses by Austin - He publishes - Hy Meridian - Ravenelii - and P. stramineus you can now read and compare with my sketches - He makes Pl. Sullivantii (Pl. surcorum Drum) I will look this out and sketch - Bruchia Sullivantii H. Donnellii - I have not had this - B. Carolinae - Anoectangium Securii - Nallii and Ravenelii -

I have not communicated your examination of such of his new plants which I submitted to your eye - Shall I do so I told him that I had sent them to you and that I did submit every thing that would into the synopsis first to you I do not know whether you had all of them and had replied to him

Very truly your old friend

Thos. P. James

Cambridge May 14. 1877

L. Desjardins Esq
My dear Sir: —

Now since we are of decidedly of the same opinion with regard to the propriety admitting Mr Austin into a connection with us in the preparation of the Synopsis — I see no other way left us than to go along by ourselves taking our time to do the work thoroughly

I am much pleased at the prospect that your paleontological labour will admit of the devotion of a portion of your time to the biological work, and that in the Autumn you will begin earnestly to prepare descriptions of the Musci — You ask "if I can wait until that time (September) all right" — I reply I can and most willingly will abide your time, the delay will will scarcely be one in our progress as I can in the mean time give ~~devote my time on~~ attention to the examination of Hypnaceae — I do seldom take a summer recreation of any length of time and can do much so will now continue our preparation and not give up our object

I thought I would postpone this reply until I could re-examine the last volume which I began to see, but I find it will be some time yet, before I can fully determine them as I am called off for outdoor work this spring time of year

Since my last letter to you I have received another parcel of his new Florida mosses from Austin collected by Dr Donnell Smith viz which he has called — Hookeria antillarum — Trichostomum canaliculatum Hupe Macromitrium Donnellii etc to which I replied and reported that his Hookeria was Hookeria varians Sullv. and that his Trichostomum canaliculatum was nothing else than our Syrrhopodon torlus N. S from same locality and received from Daniel B Smith in 1860 — and which we determined as a new Syrrhopodon and totally different from a Trichostomum — I sent him a scrap of Dr canaliculatum Hupe — and that his Macromitrium Donnellii N. S. was very near to M. rhadocarpum which sent specimens if we could get good perfect capsules, it would settle this species So you see what we escape in not having a connection — I think if you continues thus to publish his determinations he will on approval loose all cash with foreign bryologists —

Still we are adding to our stock of mosses by the Florida collectors as above we have a Hookeria & a macromitrium — we also get novelties from Dr Sartor I send the Hepatica of Sartor & Austin for determination Very truly your friend

Thos P James

A week ago I received a package of fine Mosses from Austin all named of course to which I promptly replied and will give you some of them dates.

— "Sphagnum serratum N S" this new to us —

— "Neckera Floridanum N. S." was Hyp. Wrightii Sullv

— "Syrrhodon spatulatus" "N S" = Syr. whitianus Sull see above I had a couple of days after a postal from him announcing that this sp was a Calyptropsis in fruit I at once replied requesting specimens in fruit. Have not yet rec'd them —

— "Leskea Donnellii" N.S." = an Entodon barren

— "Macromitrium ? Floridanum" too scrapy

— "Bryum pinchaliadi" — B. platyloma

— "Bryum — ? = Bryum Coronatum

— "Pilotrichum Ludovicianum" = P. cymbifolium Sull good specimens but barren

— "Pilotrichum Ludovicianum" right & in good fruit the first time found in such a state which will enable you to complete the diagnosis which C Müller could not do.

I have sketched it fully it is unquestionably the same sp: sent by Dr Mohr as Neckera (Orthotrichella) Ludovic. I could not find a calyptra nor could I detect male organs ~~in about~~ in almost every specimen but abundant female ones I therefore consider it decidedly certainly —

— "Hypnum (Campylium) Donnellii N.Sp." I am to look at this again I think I will be able to make it

— "Pilotrichum undulatum" — right: Neckera undulata

— others in poor condition

very truly Your friend

Th. P. James

I send you a specimen of Mnium medium from about a mile from our house for your own herbarium it is a rare plant

103

103 duplicate

Cambridge May 19 1877

L. Lesquereux Esq

My dear Sir —

I wrote to you on the 8th inst, about our bringing into our connection Mr Austin, fully which letter I hope you have received —

I have now reexamined the returned Mosses and reports etc. I should have done this sooner but for Mr Austin having sent me interesting mosses for Dr Smith

— Pleuridium Ravenelii N.S. Aust — I have sketched this on a narrow slip — you say this may be new & is new if the leaves are serrate & the calyptra papillose as in the sketch. The sketch first sent has no calyptra figured on the last I have made calyptra which is not papillose and the leaves hardly serrate see sketch — On the back of this I have drawn Phas: cuspidatum from specimen in S S Mus Lyell I submit it for your opinion —

(21) Bryum — I have sketched 3 additional leaves very unsatisfactory from an infertile stem on the old sketch and I have sketched other leaves — showing a more open areolation than either B. pseudotriquetrum or B. leucrinum — and more pellucid on the packet of this B. you remark that B. sarcocaulon has a redness of the tower part of the nerve etc now Sullivant says that it has no redness as a distinguishing character and Schimper says that the pseudotriquetrum ~~has corta en~~ has carneum billa ~~and the plant of B. carneum & the plant~~ our plant has this redness and I think our plant is B. carneum ? — I sent a specimen No 361b No 83 of my letters of what I considered B. carneum from Wolf ~~all I had~~ it is admitted on the Enumeration 361 b —

Bryum carneum ?

B. carneum ?

(43) Fissidens — N. S. Florida Barber

On the sketch I have drawn 3 more leaves 1. 2. 3 — 1 is an old leaf — the borders of the leaves are not pellucid but opaque to the margin — the lamina is bordered with a pellucid wavy margin in 2 or more series of narrow cells. The leaf — might be said to be entire so slight an appearance of serration at some the apex the nerve is not entirely pellucid

The operculum varies ~~much~~ some – I have hastily sketched the obtusifolius placed side by side with it and it ~~does not~~ varies about some size
I could not find a calyptra –
It is synoicous –
Can there be two species one a branched plant the other simple? – You have all the branched specimens – There may be more in the bark of the original plants –

(16) Weisia – – – – Vernon Co. Mo. Hall by – Large
~~Sketched this I do not find the leaves papillose. It is (specimens) the areolation is very obscure especially near the apex the reticulation is roundish quadrate in upper portion more quadrate in the middle and pellucid oblong below or considerable below the apex~~

I have sketched this I do not find the leaves serrulate or crenulate nor papillose, the areolation is very obscure in the upper part especially near the apex the reticulation is roundish quadrate in upper portion more quadrate in the middle and pellucid oblong below never varies 2/3 3/4 or considerable below the apex –
I have sketched the calyptra on seperate paper from which it may be a macromitrium and yet the stem or plant appears to root independently of a primary repent rooting stem, suggestive of Orthotrichum but peristome differs materially and resembles more Physcomitrium – His memoir

(3) & (6) Weisia – This appears to be nearly the same as (16) ~~seems~~ It is smaller and much branched the leaves not ~~curved~~ curved or bent at the apex the areolation is not so obscure the meshes more at the lower part are much thicker It may be another species –

– Weisia ~~Wolfii~~ Canton Ill. Wolf ~~It~~ This is a variety of W. mucronata (not mucronulata) with much longer leaves

– Pharcum Sullivantii – Yes! 29 & 77 Field Columbus It does not compare with Pleuridium Ravenelii but is Astomum Sullivant

– Pleuridium alternifolium! Field, Columbus –

– Weisia viridula! Field, Columbus

– Physcomitrium pyriforme & hians – This species varies so much that I am inclined to think Schimper's P. acuminatum is little more than a variety of P. pyriforme

Insert this plant after Fissidens (43)

– Dyrrhopodon Taheitensis Sull: I found this plant on the bark from which came Fissidens 43 some of it may be seen on a fragment of the bark herewith and no doubt more will be found in original I think from the sketch there can be little doubt that it is Dyr. Taheitensis – I have the same from Austin coll by I D Smith –

– Orthostichella Sudovicciana C.M. – This specimen is from Austin collected by I D Smith and is the same precisely as specimen from Dr. C. Mohr as the plant so named by C. Mull. – We are most fortunate in getting it in a fine fruiting condition so that you can complete C Mull. diagnosis –
I have sketched it but could not find a calyptra nor could I detect male organs but abundant female ones I infer it to be dioicous
There was but one operculate plant which was apparently somewhat imperfect it was smaller than other de-operculate
– After Sullivant had his Orth cymbifolium drawn and finished for his Icones he met with a fruiting specimen from St Domingo and had a sketch made of it I send what is so far of the specimen (which requires to be separated) his sketch being too large ~~but~~ I have made a copy of it by which the calyptra appears to have a hairy calyptra (there really appears to be so little difference between Sull: Pol. cymbifolium & Mueller's O. Sudovicciana that I question whether Mueller's is much more than a variety of Sull. O. cymbifolium

Dr Gaba's Hepaticae which I sent after to Mr Austin he reports to be –
– 33 Sphaerocarpus Connellii N.S. now being published in the Torrey Bulletin –
– 36 Lejeunia Sullivantiae (I make out his label sullivantia but think he means Sullivantii)
– 44 Lejeunia Sullivantii same as above

105

105

Cambridge June 7 1877

L. Lesquereux Esq

Dear Sir

Your favor of the 3rd is in hand

You should by all means take a recreation a good long one & during the hot days of summer and I suggest as the most invigorating and agreeable one would be to come to Cambridge and go with me to the white mountains this course I have no doubt would prolong your days and you would be in better state of health to work up the synopsis in the autumn

You mention having received my two letters of 19 & 27th and the receipt of having that of the 4th inst I infer has arrived to your hand

I do not know the whereabouts of Dr Garber I have not written to him nor have I heard from him since he graduated at the University of Penn as a medical Doctor whilst in Phila attending lectures in 1873 I had several letters communicating plants collected by him in Penn for names — I did not know that he was exploring in Florida until you sent me his Musci —

I am satisfied that Austin's Macromitrium Donnellii is Mr. Sullivant's diagnosis Calymperes Donnellii is Calymperes Richardii & Syr. Donnellii is Syr. Thelotremum — and I will look further into this Thuidium Donnellii = T. Garberi N.S. and if I find its likeness will inform you

I present you with the specimens of Orthotrichum Ludoviciana with adelphous ~~it has the finest fruiting plant~~ I have two with single capsules — I insist that you shall have this finest specimen — Austin sent me quite a good lot which I cleaned out I question much whether he observed the fruiting plants or he would probably have kept them but completed Mr Sullivant's diagnosis I return the small capsulate spn of No 16 for yourself I will keep in view this moss & if one cannot be found identical we shall have to pronounce it nov. spec. and No 3 also this is a remarkable variety of 16 with numerous branches and shorter stature

I at one time thought No 16 might be a Macromitrium but upon reflection I note that genus has primary creeping stems & upright branches whereas our plant has undeveloped leading stem

104

104

Cambridge May 27 1877

L. Lesquereux Esq

Dear Sir

I wrote on the 19th inst and numbered the letter 103 which ought to have been 104 — mark it duplicate

On the last page of that No 103 duplicate I mentioned some of the Mossy New Species received from Austin a few days thereafter I received another consignment which I examined and reported to him yesterday correcting his naming and pointing out to him what species they were I will now report to you upon these Musci (N. Sp. Aust.)

— Syrrhopodon spathulatus N.S. = Syr. Tallinsii Sullivant this name I had suggested to him and mentioned in my last letter as being formed by Dr Garber's Bar. regularis I found at a second sitting was wrong — it is not that species — and from a single fruiting specimen from Austin came to hand which as I suggested it to be a Calymperes he dubbed it; Calymperes Donnellii N.S. so determined is he to have the naming of species but in this I have checked him for I made out the plant to be Calymperes Richardii C.M. and proved it by a comparison with a specimen collected by Spruce on Amazon R. of his specimen I have made a sketch for you & send it & on the other side I have also sketched the Cal. Richardii for your comparison I had no fruiting plant of this but there is no doubt — we now have this genus to report for the synopsis is more of same genus yet — I send Austin's specimen I did not cut up his fruiting plant that you might see that it is by its calyptra a Calymperes —

— Syrrhopodon crispus N.S. Aust. which I suggested to him was not a Syrrhop. but a Calymperes which it is and he assents to that & says it is a Calymperes — the species I have not been able to make out either I have examined all my stock of that genus & other specimens — I have to look further in Sull. herbarium & may make it yet I submit a sketch — it may be a new species —

In one of his cards he mentioned obtaining a new Fissidens so I asked for it and it has come to hand and it proves to be identical with the new one from Garber which he had Donnellized and named

— Fissidens Donnellii N.S. Enterprise Florida —
I in writing to him yesterday informed him that we had previously the same from Florida some time since and that we had worked it up but that I did not know what name you had given it — I send a small sketch for comparison with ours — I add his specimen —

Typ. Jardinii

— "Macromitrium ? Floridanum N.S. Everglades"
Schlotheimia ? Floridanum N.S. a very indifferent crop which he thus tries to secure the naming of better plants are found — I have examined all my macromitria and others too and failed to find its likeness — I remarked to him in yesterdays letter that "It would be well not to name a plant from so slender an example, especially generically" (you will observe that he does not know whether it is a Macromitrium or a ~~Schistostega~~ Schlotheimia

— Archidium tenerrimum Mitt Everglades Fla. S.D.S.
I send a specimen I think this came before

— Archidium Donnellii N.S. Virginia S.D.S.
I have made a sketch and send see his remarks on the back of sketch — I send specimen

I have looked over and examined some of his former plants and have made out viz —

— Macromitrium Donnellii N.S. St Augustine — He having sent me better specimens so that I have been able to identify it and ~~gave~~ sent his Donnellii adrift and undonnellized it — it is —
Macromitrium didymodon Schwg of which I have made a sketch (some of the specimens were more slender) I have made another fuller sketch and refer you to the description in C. Mull. Synops. I. p 741. —

— Hyp. (Campylium) Donnellii N.S. ? Everglades
(the same as) our recent acquaintance from Dr Garber and is Microthamnium chlorogenum C.M. so I have undonnellized another of his N. Sp
+ Hyp. Rhynchostegium ? Donnellii N.S.

I now question whether Austin will hazard publishing any more of his N. Sp from D.S. I have undonnellized so many of them — the first paper that he published on the Botanical Gazette I have never reported upon to him fully — several of which are determined to be wrongly named —

I now take up ~~the~~ a couple of Nally Plants which we have been discussing — viz —

— "(16) Weisia — Vernon Co. Mo." of this I have made another sketch and send it proves to be a Calymperes N. Sp. I have examined all the sp. of that genus that I could find and have failed to find its likeness yet — you have sketches of this showing the curved apex I have not drawn any of this form in this —

— "(3) Weisia — Nesho River Kans. I have drawn this on the back of (16) It differs from that plant somewhat I think I sketched this (3) and (6) and you have the sketches
They are from different localities

Please mention in your next whether you have received my letter in date May 4th

Very truly Your old friend
Wm. P. Jaynes

105. 105 continued

Having several specimens ready for your eye I send them for you to look at when you have leisure

— Dicranum fragilifolium Leg Vancouver 1870 Mrs Austin

I submit sketches of this plant also of Lindberg's & original specimen from Sullivan Herbarium to be returned

— (100) Hypnum Oregon Hall Leg

I have sketched this and send all the barren hoping you may recognise it as I am desirous of reporting names for all of Hall's duplicates

— (103) Eurhynchium Oregon Hall

I send sketch & the original specimen all of it hoping you may at once recognise it

Sullivantia

— (91) Hypnum Oregon Hall Leg

I do not recognise it to be either Stokesiform or Myosuroides I wait your communication

— (97c) Hypnum Oregon Hall Leg

I send all of it & sketch

— (299) Hyp.? Whipplea? very doubtful under Lime stone bridge Dr Lemmon

Has much the appearance of that species in the leaf under the microscope but by no means the aspect of that

— Hypnum cercium? Mitt California Kellogg

I send sketch & all the specimen I did not pull the capsule to note the peristome wishing you might see the operculum on the caps Mitten had not an operculate plant of H. cercium its dioicous

maybe Mnium autoicum

— (68) Hypnum Taylorville Ainsw.

There appears to be two species I have sketched both in aspect they appear distinct Sorry that they are barren but the plant is an interesting & I hope you may know them

Bryum autoicum

(10) Hypnum California 1875
I do not recognize this

(57) Hypnum Texas Comale Cruck
Floating on in water barren

— Hypnum sarmentosum locality unknown but it is evidently from Southern States
I can not make it out yet

— Hypnum callichroum? Shelburne Nov Scot July 1873
as this barren it may be known to you
I have others to look at to keep me employed

— Sphagnum serratum N.S. Austin
I send specimen to you eye you will know it Rapid

Cambridge July 17. 1877

L. Lesquereux Esq My dear Sir — I have your favor of the 9th instant — You ought not to have expanded one cent longer than was your intention to have done but have gone on your recreation trip — I am very glad that you have come to Penn — I have no doubt of the advantage it will be to your health

I got Musci from various Bryological collectors from Miss Biddlecome among them I requested specimens of the two Bryum described in the Botanical Gazette — Bryum Biddlecomiae & Hypnum (Bryum) Colorado I have them & have made slides of them for your eye — the Hypnum is a novelty which I will investigate more

of the returned musci —

— Decurrent fragilifolium was made out by Austin I don't think that I mentioned it was by him

— 299 H. whipplenum still puzzles me

— Hyp. denticulatum? is a Brachythecium denticulatum a peculiarly polished leaf variety yet it differs in poverty yet it may be it may be only a variety

— No 68. is no doubt about the same.

— No 50 is only (in probability) a peculiar variety of H. orthocladon

— No 10 B. is a variety of H. Nova Anglia I was misled by its size and short round leaf

— 99 I think as you do is H. Nuttallii

Chothers I will look into & try to make them out

I have sketched quite a number of Hypnaceae to submit to your Eye.

I know nothing to the contrary but that I will shall be in Cambridge during the month of August and shall be pleased much to see you here when we will discuss matters fully

I saw Dr Magee to day he reports having seen you at Colombus recently

I think to be in Baltimore Md on the 11th day of September

L. Lesquereux Esq Cambridge Aug 16. 1877

My dear Sir —

I am mightily disappointed in not having you to visit Cambridge — I had been anticipating the pleasure of your company since the first of August.

These "Strikes" have been productive of immense harm in so many directions — the extent of which can never be known or calculated —

Dr Gray is now about from home out on a Scientific tour with Dr Hooker & others & you were probably on the Pacific coast and he may not be back before October — after which time you could make the contemplated visit we wish him might more practically consult and come to a more satisfactory conclusion

I have referred to the copies of my letters etc and can report that I have from time to time very hastily copied your "Enumeration" of the Musci from page 54 onward — previously to No 54 I have no copy — I copied them in order that I might refer to them as we progressed —

I returned with my letter No 95 Jan 20 1877 the following pages of your Enumeration viz — 81 82 83 & 84 with remarks of my own thereon and with No 96. Feby 2 1877 pages 85. 86 87 & 88 and with No 97. Feby 4 1877 pages 89 90 91 & 92 the last two pages (91 & 92) oddly enough I find I have omitted (forgetting to copy in my hurry to send I suppose)

Now! I would copy all from page 81 onward with my remarks thereon and my letters which accompanied them but as this would not be done in a very short time and some pages might not be required so I have concluded to ask you what and which of the pages you would have me copy for you and as soon as you get this drop me a line (even on a postal card) stating explicitly all that you need and I will most willingly copy & send — please do not hesitate to say all that you wish — If I do not hear from you soon I will set to work and copy all that I have sent you since the time

I have had no pages after 92 and none copied after 90.

Jan 9 to 20 1877 inclusive

I have been working all the time during working hours and have a large parcel for your inspection of the pleuro carpi and may yet add thereto - I will send them as soon as I know you desire them or can give them your attention

— Bryum Biddlecomiae Austin —
See full sketch and read diagnosis in Botanical Gazette — I think it is sp. nov —

— Hypnum (Myurium) Coloradense Austin
See full sketch — It is sp. nov — see Bot Gazette (Coulter) —
I have looked up the ~~allies~~ cognates and add sketch of ~~Hyp~~ Hoyjedalium Lindb from a specimen in Sullivant Herbarium for comparison. also a
sketch of Myurium Hebridarum from a specimen from same source — Also a sketch of Eurhynchium piliferum from my specimen —
I consider the species a sp. nov —

I return specimens of Confervas from Dr Garber some time ago sent & which I submitted to Dr Farlow for naming — viz

~~415~~ — Chlorolepus flavum
417 Same —
Fresh water?
419 Chizoclinum R. linum Thuret
near R linum Thuret perhaps new but doubtful as this is not such — but kept for copying I announce that

August 30th — Your favor of 26th is in hand. The package of Musci has not been received. I hope it will turn up —
Am glad you have found the ~~missing~~ missing papers all right — I had not commenced to copy papers.
I shall very willingly examine your Kelly Island moss as well Dr Garber as soon as received & promptly report — You ask — did I find anything valuable in my explorations of this year — I answer Yes! and of this you can judge from what I have sent you & have yet to send — my explorations have been wholly in my own study — I have not been abroad a single day for a whole year I have been unexpectedly

Cambridge Aug 28 1877

L. Lesquereux Esq
My dear Sir
I have concluded to divide my large consignment of mosses to be submitted to your inspection — and send such as I have up to the Hypnaceae. Of this division I have a large parcel to be sent at a future day —

— Dicranum fragilifolium Lindb. I have made a sketch of D. fragilifolium from a specimen in Sullivant's Herbarium direct from Lindberg which will show that Austin is wrong and it is likely to be D arcticum — Look at sketches sent

100 Hypnum I return this — with sketches under the Camera (larger than the former sketch) hoping you may recognize the species —

Hypnum aneacum? — It is not aneum — I have made another sketch & send — I begin to think it is Brach rutabulum var sport one cap one stoute leaves etc

— Hypnum callichroum? — about which you remark "more probably H. circulare Mitt Linn Proc Bot VIII p. 42" — on this species — I find that Sullivant has in his copy of Schimper Synopsis p. 698. under Hyp. Bambergii = Syn H. circularis Mitten in 69 "parce mis a litt Mitt Oct. 1869 —
and in the pamphlet Mitt 49th parcelle he adds "circularis is H. Bambergii sch a prior name see Litt. Mitt Oct-30. 1869 — And now as I have a couple of specimens of Hypnum Bambergii B.S. — I have sketched it — that you may compare with our plant — Which I have concluded may be only one of the numerous varieties of H. cupressiforme —
You will note that Mitten's H. circularis is H. Bambergii and correct Mitten's name accordingly as Mitten seems to have acknowledged this fact

et nunc opere [illegible] working day" during that period
Mr Rutland
J Lesquereux
Esq & Still think ours sp. N circulare

(43) — Fissidens Gaberi N.S. I have found this species in Sullivant's Hub^n sketched among the Wright Cuban Mus 2" Collection by Schrader — which set seems not to have been named nor described or distributed — I have hastily copied Schrader's sketch and send — There are six plants from different stations — on old wood — on stones — on ground presenting different aspects but all reported to be the same species — the copy is in pencil "(9) Cuba H. Scriven" —

— Fissidens N.S. Syracuse N.Y. Mr O Rusby
I have sketched this plant and on the back of the slip the F. grandifrons for comparison — which sp. our plant is decidedly not the same and I cannot find any sp. to resemble it — it is not in fruit — but very interesting and I consider it new and worthy of a name —

— Dicranum Squarrosum from Alaska see sketch & plant —

Right! — Right!

— Leptotheca Mightii Enterprise Florida
I have made a full sketch of this W. S. Porter by 1875 also — a sketch of 53 Leptotheca Mightii Cuba which plant I have and send a sp. Wright — This is an acquisition and must be added to our synopses —

— Encalypta — Anvalaska Alaska Harrington
I submit sketch — think it new — I send all that I have of the plant too
Encalypta shaddocampa Colorado Wolf Creek Rock 1873

— Splachnum — Ungua Alaska Harrington
I suppose this is S. ampullaceum as I cannot find any other sp. to approach — I have not sketched it my eye fell upon it. I send

Cylindrothecium Buckiana Tetraplodon Mnioides

— Cylindrothecium Schuylkill Fairmount Oct 1877
I have sketched this & submit it —

— Hookeria Varians Sullivant Enterprise Florida J. D. Smith

Austin sent me this specimen as you see marked H. antitheticum — which it is not — but H. varians — this to be added to synop. — no doubt of this

— Meiothecium lageniforme Mitt. San Diego California Dr Palmer
Vide Jour. Linn Soc Vol XII p. 470 Mitten
See large sketch and read Mitt diagnosis and I think you will say right! — I send also a sketch of Meiothecium megrense sp. from a sp. in Spruce Andes in Mosses for Andes — comparison and a few scraps —

— Meiothecium sp. nov. Texas Elt. Rau com
See sketch full — I cannot make it to agree with any sp. in Mitten — so I infer it is sp. nov.

— Dichelyma sp. nov. Erol Dam N.H. 1869
I submit another sketch which however I could not complete as I could not in the whole parcel find a good peristome you will find a peristome on the sketch which I made and which you have

Well one of Mr Rau's sketches

— Antitrichia curtipendula — This presents so different an aspect from the specimen No 355 of Mus. exsicat. that I submit it —

Right

Miss H. J. Biddlecome of Springfield Ohio recently opened a correspondence with me by sending me some specimens of Musci for name and offered to send me more — so I asked her for specimens of Bryum Biddlecomae Austin, and Myurium Coloradense Aust. which he published in the Botanical Gazette II. p. 110 (which see) — These plants were sent to a friend of hers by a person residing in Colorado where she collected them — Miss B. sent them to Austin who kindly named them described & published them.

— Bryum Biddlecomiae — I have added two drawings of the pencil tone with my highest power of the Camera on the former sketch. The leaf on plant is decidedly more pointed than B. Oregonium figured in Wilkes Ex Exp by Sullivant I will when I go to Herbarium to find a specimen of Bry. Oregonium and compare with it or a specimen for yourself —

— Fissidens N.S. Syracuse N.Y. in the upper right corner I have drawn the point of a leaf with correct number of cells & form thereof and two sections of the stem & four sections of the leaves and to the Sk of F. grandifrons in the left hand corner an upper point of a leaf — two sections of a stem and sections of leaves — the annulation is more obscure than in our plant — it is however very much smaller — 1/4th or at least 1/3rd the size of that of our plant — You can see differences for yourself I send specimen for yourself

— Mnioherca I return them as I have sent you my copy of the Jour. Lin Soc Vol XII 1869 containing Mitten's Mus. Austro-American which you will keep & peruse until we are through — I can consult in fact I can have the copy belonging to the Harvard University Sack specimens as I have are marked F in this Book

— Hypnum (Myurium) Coloradense Austin

107 107 Cambridge Sept 12. 1877

L. Sequeant Esq
My dear Sir

Your favors of Sept 7th & Nov 10th and the package of mosses sent 26th Aug have come to hand since I have written

In reply to that just rec'd (10th inst) I state that pages 93 to 96 of our Enumeration have never come to my hand — I have never seen them — if sent they have miscarried thro the mail I will enquire at P. Office here I am sorry for this, and must beg of you a copy of them and would take it as a favor if you would return page 91 & 92 as I omitted to copy them in my hurry to send.

In reply to that of Sept 7th which came with my returned mosses submitted to you — I have but casually read your remarks upon the packets and have not re-examined them at all simply for the reason that my medical adviser has forbidden me to use the microscope and for sometime to come so they lay by for the present

Last Sunday week Sept 2nd I had a nervous attack to my right arm & hand and for a time I could not write but with medicine & good nursing under skillful treatment I am gradually recovering and I trust will be eventually restored — It was my intention to have attended the Am Bonological Soc's session at Hartford beginning this day but I am kept at home

In reply to that of Aug 26th and about which I made some remarks at the foot of No 106 ag 28 I now add —

The package of mosses came to hand nearly at noon on Saturday Sept 1st and I at once set about examining Sanborn Florida Musci and commenced sketching the 2 Archidia and have been unable to add much as I am forbidden to use Microscope

Hard collection for Kelly, Leland will have to remain untouched for the present

I now report upon Sanborn Mosses (the Mosses I enclose) — viz —

No 100 Neckera undulata Sch.

161 Leucodon Domingensis Spruce. unquestionably & compare accurately microscopically — I send a

a specimen of Wright's cuban moss which you will see at a glance is the same. This is an acquisition and must be appended to Enumeration.

— 102 Not "Campylopus" but a very fine Anchidium see full sketch. it is not A. ohioense and I doubt it being one of Austin's. now yr I had intended to have made partial sketches of Austin's but as I cannot now I refer you to my letter No 101. Mar. 30 for sketches for Anchidium Lucinia & Ravenelii and to 104 May 27 for a transition to A. Ravenelii you may by comparison with these sketches find whether our 102 is either

— 103 Not "Bryum male flowers" but another Anchidium see full sketch this is not A. ohioense either you will be able to determine by comparing as above —

— 105 Trichostomum see sketch I cannot find it

106 — Calymperes Richardii var. the variety which I found with that species that Austin called Syrrhopodon spathulatus and reported in my letter No 104 & which Austin eventually named Calymperes Donnellii — which I showed to be Calymperes Richardii — this variety as I call it may have a species if it could be found in fruit

108 — Bryum commutatum right

And now with regard to the balance I have not examined with microscope but looked at them with a hand microscope and think you have them nearly right yet about some I have doubts when I can use the microscope I will look thro' the duplicates which I keep and then I will report if important — I think the following near enough to reply to Dr Garber

No 96. 98. 99 104 Hypnum albulum
99 109 110. Hypnum microcarpum

No 107 Aspatia mid with 96 a Hepatic I return and will send to Austin for the names —

I have now lost more than a whole week from work and may have to be idle for time to recover my physique I must care entirely from all work & brain exercise but you see I neglect do some and now I am admonished to quit so I remain very truly yours old friend

Jas. T. Gomes

109 109 supplement

Cambridge

L. Leighton Esq

My dear sir

I have looked into Garber's Florida Hypna — the H. albulum is right Mr. Sullivant has determined to be Hypnum micans Swartz var albulum —

— Hypnum microcarpum — I think from the casual look into — there are 2 species of Mitten's Sematophyllum — but what I do not look up — but am satisfied that they are embraced by Mr. Sullivant under Hyp. microcarpum

Austin has not reported upon the Hepatica sent him

Your moss collected at Kelly's Island are

— Seligeria pusilla, a few capsulate plants, and the form of the leaves determine it —

— Hypnum notomum — rupestre I say

"These two species seem def.

— fruit — differ so little as to be of no account

— "Dicranodon Porteri" is certainly D. arenarium

— Trichostomum rigidulum appears to be right the areolation at the base of the leaves is a little longer & more oblong quadrate than is usually from Mississippi.

— Hypnum pygmaeum — Hyp. minutissimum

Leskea rostrata the one named on packets — returned —

You have my thanks for the specimens of Hypnum rufescens & Trichostomum rigidulum & Grimmia unicolor

— "Grimmia looks like G. Agassizii" is Grimmia unicolor. —

Of those of my mosses returned on which you ask for further examinations I send back —

— Eucalyptus — Alaska Harrington

about which the Calyptra is pubescent at the apex I have one from Colorado, E. rhabdocarpa which is slightly pubescent at the point of the Calyptra and I refer you to Austin's Ex. Schwenitz, Dr. Wislizenus Bot. Bogelli from 1877 where he describes the whole surface of the calyptra as minutely & remotely pubescent — this character may belong to American species

— Hypnum California Kellogg
see sketch - these scraps come somewhat near to H. pennum - May this sp: been found in California

— Hypnum not stramineum? Plover Bay E Siberia Dall
see sketch What spec?

x — (61) Hypnum Limnobium - Molle? Lake superior Macoun
see sketch it does not resemble that sp in aspect

— (89) Limnobium Owen Sound Macoun
by sketch is ~~some to be~~ it H. palustre?

— (151) Limnobium palustre? Rejter Park Owen Sound
see sketch

— (1014) Limnobium palustre? Montreal Watt
see sketch is it palustre?

x — Hypnum Halleri — Oregon Hall leg
is now Hyp occidentale

— Hypnum obtusifolium is 153 Drummond, British America - from Hy set

(8) Hypnum obtusifolium Oregon Hall ~~from the brown wrapping paper~~ is the first that came and is the only fruiting specimen - I asked Mr Austin for fruiting plants and they gave the specimens of the Brown paper - I have made sketches & remarks upon the sketches and full remarks etc

— (9) Hypnum obtusifolium var — Oregon Hall
see sketch -
— a specimen from California with narrower leaves —
— another from Sierra valley - California
— another from California Wame Aust. mis

— Hypnum obtusifolium var. from H N Bolander
I send all that came - Some in fine fruiting condition I have ~~made~~ remarks of the paper
I am of opinion that - 509 Hypnum illecebrum var of muricatum & H. L. is the same as H. obtusifolium var. I have made a full sketch showing

Cambridge Oct 9 1877

L Lesquereux Esq
My dear Sir

I now send the doubtful Hypnaceæ at which I had been at work during the later summer months - some of them undoubtedly will prove common species - yet I believe there are novelties among them - I submit them for your determination &c

— Thuidium Silver Spring Ochlawaha
The sketch shows novelty - Florida 1878 W L Foster leg

— Leskea (Thuidium) Wollei Austin Niagara Wolle leg
(vide sketch) Read Perry Bulletin Vol. p. 22 - Lake superior Prof Macoun

— Hypnum salebrosum var an sp nov.
By Perry Penn Oct 1849 Th. P. J. leg
I have made a large accurate sketch under the camera - and have made remarks on the paper

— Hypnum salebrosum var Texanum? aust —
See large sketch Dallas Co Texas L Bolle leg Dec 1869
remarks on the packet —

— Hypnum (Brachythecium) Thuidium Errol Dam
See sketch & compare with Schimper's delineation after making sketch I detected in Sullivant's Hot a specimen which I had submitted to Sullivant as that species but which he never reported to me - which specimen he has marked "right" Feb 1872 W.S.S. Please return this that I may replace it —

— (50) Hypnum California Kellogg
The sketch represents a strongly deviated plant that I do not recognise sorry no fruiting sp —

— (88) Hypnum Oregon Hall —
and sketch - It seems so distinct that I am in doubt of its being H tetabulum —

— (39) Hypnum Nevada W Humbolt leg
not tetabulum - Lacv - entirely too slender for that sp Watson
no fruiting specimen found no inference

— (80) Hypnum Owen Sound Macoun
Has not the form of H. circulare ~~in its form~~ its branching

— Brachythecium — Colorado.
too slender for H rivulare no fruit — Wolf & Rothrock

— 57 Hypnum — Piements pack E Humboldt Mts Nevada
a pretty plant short nave etc
can it be one of Mitten's 49° parallel

— Hypnum dilivium Mitt? — Alaska Harrington
see sketch sorry no fruit —

— Rhynchostegium Tesdalii — Fairmount Philad^a and
see sketch — there is confusion in Wh Mts — 49th lg
their specimens among another —

— (103) Eurhynchium — Oregon Hall
I have made a full sketch — It differs from E Stokesii
in many points — I have added a page of what I
consider H Stokesii —

— (X) Hypnum — Oregon Hall
see sketch — it may be H Stokesii —

— Plagiothecium pedicellum Dicks — unalaska
see full sketch — alaska F. Harrington leg

— (3) Plagiothecium denticulatum var Schofoba — Rau
see sketch leaves almost orbicular —

— (228 230) Hypnum — Illinois Hall
see sketch — ~~pretty plants~~ peculiar in the
numerous paraphyses etc —

— Somatophyllum — San Diego Cal
see sketches, the species is an mitten — but I can
not make the species there —

— (115) Hypnum — Oregon Hall
see sketches full I cannot determine it —

— (55) Hypnum — Southern Utah
see sketch amblystegium likely — May 1874

— Hyp: Burgense Austin — Florida J D Smith
see sketch

— Amblystegium spruce — Colorado
see sketch — wolf & Rothrock

— (33) Hypnum — I have returned example
with such additional sketches as I could give

— (63) Hypnum — Sandisfield Berkshire Mass
two specs — one the largest is not H. adnatum —
but what is it? — the small one appears to be nearly
H. enervis see sketches —

— Hypnum — Falls of Niagara N Y Boat Hse
I have made an accurate sketch for you eye — F.P.J.

— Amblystegium confervoides? — Dixville N H F.P.J.
a good sketch

— Hypnum — Heidelberg Pa Austin
~~probably~~ see the sketch —

— Hypnum — E A Rau mich
see sketch a barren specimen but interesting

— (444) Hypnum subtile? — Royston Park owen
see sketch — Sound Ontario Roy
— Hypnum subtile — Dixville N H F.P.J.
a sketch with it —

— (140) Hypnum imponens? — Bear river Utah
see sketch — It has so different a aspect — Carlson
that I doubt the species —

— Hypnum subimponens — California
see sketch. I think it is that sp — shaded rocks

— Hypnum not subimponens — California Kelly
see sketch — what species?

— Hypnum — (cristacastrensis?) — Lake Superior
see sketch it does seem different — T C Porter

— Hypnum — Ye Seneca Vd. Dr B W Jones
see sketch, it is different from H Novadnense

— (623) Hypnum plicatile (Stereodon) Mitt?
see sketch — Swin Lake Colorado W & R. —

— Hypnum complicatum Mitt? — Colorado W & R
see large sketch —

— (59) Hypnum intermedium — Mt Auburn Mass
see sketch — Mt Auburn
I send a foreign sp. for you to look at —

— Hypnum — n. sp. — Alaska & E Siberia Rothrock
see sketch — I cannot find anything like it.

— Hypnum — not Schreberi — California Kelly
see sketch it is not schreberi what is it?

Cambridge Oct. 18 1877

L. Lagarias Esq

My dear Sir

I have this day forwarded by the Adams Express Co. a package to your address freight paid - containing -

— One 8vo vol. = Jour. Linn. Soc. Vol XII for your use - which you retain for reference until our work is done I have accepted Mr. Gray's offer

— Two pamphlets of S. O. Ludlow's - they have interesting remarks on various American Musci & I send for your perusal which after you have fully done with please roll up and return by mail to me that I may return to Mr. Gray -

I wish particularly to mention that the Hyp. obtusifolium which Hall collected is identical with Drummond's plant & is now for the first time found fruiting -

— Mosses - your Kelly's Island moss - the Drummond returned opening - the Hypnaceae of doubt on which I have the passed summer

If you receive Musci for determination from any source or collect any - do not hesitate to send them to me for examination as I can use the microscope moderately - at short sittings without detriment to my eyes - the fatigue brought on was caused by incessant daily application with the instrument

My recent attack was caused by my constant sittings without intermission for the past season - this I shall avoid in future taking time leisurely to work

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Cambridge Nov. 14. 1877

L. Lesquereux Esq

My dear Sir —

I have examined sketched and made remarks upon most of the species embraced in the "Enumeration" No 562 to 591 inclusive — pages 93 to 96 my remarks being made on the Enumeration and on the packets containing the specimen — I have only to add —

— 563. P. cristatum Hampe — the sketch shows it not to be in its proper place — we have had this sp. before us some time back

— 564 P. polyanthia Schrb. I have it from the White Mts different loci & from Canada —

— 565. P. heteromalla Schf. you will observe that your quotation of station is a mistake for Swan River intended is in Australia and Phoma Hallum was collected by James Drummond and not by Thomas the American Explorer —

I have sketched the plant from No 222 of Drummond and is the species which Schimper says "is a new species which we call Pyl. heteromalla" — see sketch & specimen

Having from Hampe the Leskea polyantha collected in Blankenberg — I sketched it and send specimen for your examination.

And finding in Sullivant, Hebrium Hyp. homallum Hampe from N. Holland I have made slight sketches of both the latter on the back of P. heteromalla for your inspection —

I add a British specimen of H resupinatum with its synonymes by Wilson, Brit Bryol, on a slip within the packet which see —

— 566 P. Jamesii Sull — I found this sp in another locality in our vicinity so say — near Boston Mass

— 567 — P. subdenticulata — Sullivant seems to have called this sp: P. denticulata and also sub denticulata C.

— 568 to 574 inclusive do not require remarks

— 575 — C. Sullivantii C. M. this species I found on the banks of the Schuylkill river near Mount Park Philad^a Penn^a which you so pronounced it to be some time since —

— 579. O. refescens Dicks I infer it is strictly healthy comes within our limits of Moss America —

— 580 O. rubellum Mitt I searched in no 73 Drummond Moss and finding an Orthotheccium? thought I had Mitten's plant and sketched it — I found what I afterwards selected 2 species — and on reading Mittens diagnosis I have doubts that either were his plant — now if not what species are they I submit them for your determination

— 581 O. chrysseum Hook this sp. I found in Drummond No 221 and although the O. refescens is reported originally as O. rufescens, I could not find any among the O. ~~rufa~~ chrysseum

— 583. Hom. pseudo-sericeum C.M. is reported at p. 66 vi — and I thought I had it from Dr Moore & so sketched the plant and on further investigation I found it at page 34 of Pony Club. Battle fully described (which see and read) I then doubted my plant and now think it is nearer to Camptoth. lutescens however I submit the sketch & plants to your eye.

Finding among plants in my collection of what I think is Hom. pseudo-sericeum from Alaska I have sketched it & submit it.

— 584 Camp: lutescens Hedw — I have (as above mentioned) sketched and send the specimen from Dr Moore — Also a specimen so named col^d by Dr Lyall Oregon Boundary which I have sketched and send specimen

I found at Sullivant, Hol^m — a packet from Lindberg — R. sp. which he received from Mitten as H. lutescens — this I have partially sketched and send the original plant to be returned to be replaced

I have also the same Camptothecium subsecundum — male plant from Dr Moore Portland of which I have sketched the leaves — no fem a fruiting pl.

— 585. Camptothecium aureum Mitt. I have not yet found

— 586 to 591 I have no remarks to submit

I have at time, recently examined more of my undetermined Mosses and now I have taken out of these the Hypna as you have a number of Hypnaceæ from me I send them which you are going over then you look into these viz

— Hypnum — Texas Dallas & Bolle
I have made a pretty full sketch & send sp.

— (?) Hypnum — Oregon & California
I have sketched this but do not recognise it Nequarrora was among it —

— Anomodon — 2 little packets

I have a few more but they are accompanying which I will send at some future time

I hope you are still convalescent and that you will recover so as to prosecute our work —

110

110.

Cambridge Nov 22 1877

L. Lesquereux Esq

My dear Sir

The few acrocarps - that I had worked out since sending the large parcel Octob. 9 - I now send - viz

Barbula decolorans Hupe - ? Guadalupe Isl. (or California Palmer) where is this described - I do not know whence I get this name - do you know any thing about it? -

Bryum — Lake Superior - Macoun not Blindii - but what?

73. (2) Bryum Blindii? - I think I sent this some time since - not sure - but having sketched a new set of leaves I submit it

Bryum Franconia W. N. 1866 ? B.

If this is B. Muhlenbeckii it is diminutive in comparison of my foreign specimen - may be it is B. sauteri.

Bryum latifolium Wils. ? Santa Barbara California Foster Esq

also Wils. Bryum t. 339

(56) Bryum imbricatum - ? Thunder Bay Canada Watt as marked

It certainly is not B. capillare

38 Schistidium apocarpum Ontario

It is certainly not Cinclidotus fontinaloides as marked. It is a peculiarly ~~[illegible]~~ Schistidium

111 111

Cambridge Nov 28 1877

L. Lesquereux Esq
My dear Sir

I got your postal card of the 26th mentioning the receipt of the two packages from me you suggest that

— No 38 of last parcel as apparently Schistidium (Schistidium) glaucescens — I question this although I have not an example to re-examine all sent by you and compare with specimen No 203 Schistidium glaucescens of the Mus. Exsicat. B.&S. I have ~~[illegible]~~ (Orthotrichum) three of the leaves of that (No 203) which I send not which shows a different aspect ~~and~~ I have but little of this no. in the set of mosses

— I add sketches of specimens from a package from 49° of ~~latitude~~ Parallel from the Sullivant Sandwichs which I thought you would like to see and recognise and confirm Mitten's report (I am sorry some of the most interesting Mosses is not in the package) I have sketched them in the couple of days since I completed the examination of Wolf collection for the Illinois State Lab. Nat. History which turned out to be common mosses 12 in number the most interesting is Anacamptodon splachnoides

— Weisia Rugeliana Sch. Florida Rugel leg — I cannot see any important difference from Weisia viridula except its diminutiveness — I certainly have varieties of W. viridula shading far greater dissimilarity —

— Hypnodon cyathicarpus Oregon Bunting & Lyall I have sketched leaves no fruit found —

— Bryum pseudotriquetrum Rocky Mts B. Mr Bongum see sketch under lens than 1/3 usual power

— Bryum Brownii B.&S. by the same. see sketch

— Pleurium subpunctatum Hooker Alaska

I have the same & think I have sent to you

113 Thelia — Florida Gamber see sketch

Nov 22d 1877

I have examined Gamber Florida Mosses which I send in a seperate package by the same mail as this — and which are in my judgement viz

No 111 — Barbula unguiculata
112 Thelia hirtella
113 Thelia hirtella not T. Lesquereuxii
114 Trichostomum pallidum although male organs only — the female not developed also Dicranum Ohioense —
115 Barbula agraria 120 same
116 Brachythecium Roeseum
117 Hypnum albulum var. same as 449
118 Hypnum albulum same as 448 Mr Ely These specimens seemed to differ in the operculum from illustration in Sonne that I sketched it and not having operculate specimens in Mus. Exsic. I thought to sketch it now — the same difference occurred in former specimens
119 Bryum argenteum var
121 Leucobryum minus (rife in May & June?)
123 Schlotheimia Sullivantii
124 Leptodon trichomitrium
122 Hyp. albulum also — Halbulum var. also Isopterhopodon Franciscanum
125 Rhizogonium spiniforme

A large Box paper came to hand yesterday by express — from the Illinois State Lab. Nat History containing only six mosses & 1 Hepatica collected by Mr Wolf & there were no specimens of Hepatics & I have not examined the Mosses yet — Specimens of Hepatics I sent to Austin they might have been put into a small flat box & sent by mail at less expense

111 — 111. —

Cambridge Nov 28 1877

Dr Lesquereux Esq
My dear Sir

I got your postal card of the 26th yesterday mentioning the receipt of my 2 packages and remarks of 2 plants thereon — viz

— 38 Schistidium apocarpum var "of your list "is apparently Schistidium Agassizii" Sts" I question this although I have not the specimen to re-examine (all sent to you) and compare with specimen No 203 Schistidium Agassizii Mus: Exsicat: — I have outlined three of the leaves (It became to dark this P.M. to finish) these show a different aspect from Spec. 38 from a recollection of it — I trust my specimen 203 of Mus: Exsicat is the true Sch: Agassizii — I have but little of it —

— 113 Thelia — Florida Suber see sketch — the papillae do not show to be Globul

I have sketched specimens of Musci from a package of Mus: of the 49th parallel Mitten which I submit for recognition viz —

— Weisia Rugeliana Schp. Florida Rugel leg
I cannot see important difference from varieties of Weisia viridula except in its diminutiveness I certainly have var: of that Sp. far more distinctly This is a mistake it is not from the 49th par: package, but from one from Hunter in the Sullivant Herbarium — — But the following are from the 49th par: parcel and are such as I think you would like to examine — viz —

a good Species

— Zygodon cyathicarpus — Oregon Boundary Lyall
I have drawn later only no fruit found are under the 1/3d size or power of the camera —

— Bryum pseudotriquetrum Rocky Mt Bam. Bourgeau under the 1/3d power of camera Right

Right — Bryum Brownii Brit & Bat. Am. Rocky Mts
See this sketch — Bourgeau

Right — Minium subpunctatum Hup Alaska
I have the same sp: and I think I have sent to you — this also is from Hanson's package

I have made these sketch a couple of days past and since I finished the Wolf-Hds Mosses sent to me by the Illinois Doby Hat Hill these Mosses were 12 sp: of the common Merry the rarest way Unacumpteder sp: which inside The Hepatics I have not ~~been~~ heard from Austin yet —

There came in this evening a pretty plant of your Gaby collecting which I will take pr soon and report

I trust you are in better health

Your old friend

Thos P. James

Cambridge Dec 8 1877

L. Lesquereux Esq
My dear Sir

I have examined the last parcel of Garber Florida Musci which I find to be as

No 126 - Hypnum minutulum
x 127 Gymnostomum
I have made a good sketch of this I think it comes nearer to calcareum than anything else, which I enclose
128 Archidium Ohioense
129 Fissidens adiantoides
130 Sphagnum commune
131 Hypnum albulum & Dicranum scoparium
132 Fissidens adiantoides
133 Hypnum albulum this is more like to specimen from Mus: exsicati than the other of the last parcel
134 Hypnum albulum
135 Hypnum albulum
136 Hypnum minutulum
137 Hypnum albulum
138 Hypnum accuminatum
139 Hypnum albulum
140 Hypnum viparium delicate form of
141 Fissidens adiantoides
143 Bryum provincale or platylomum
144 Anomodon multifida
145 Steelzia Lyellii
147 Hypnum microcarpum
146 Pelekium cymbifolium Sullivi
142 Hyp. minutulum & 142 Hyp nothing more
sketch in complete hence ch

+ 127 - Hypnum from G. calcareum in having an annulus - the capsule
oval, long, linear, with out
the leaves not crenulate - denticulate
towards the apex - the areolation of the leaves at the base open and transparent or
tending up the rest (Gymnopus like) leaves not broad & sub

~~the~~ #27 Gymnostomum which I think a sp. nov. — I have made a pen & sketch which find herewith —

You will observe that it has an annulus the capsule has oblong narrow areolation the vaginula is short & perfectly oval leaves are not crenulate denticulate toward the base and at the base the areolation is loose open & transparent (Cryptopus like) the perichetial leaves the outer ones similar to those of the stem except two or three inner which are very small — none subclasping male plants I have drawn two of, as the old plant is similar to the fruiting one on a short stem the younger one has a longer stem and seems different probably owing to its young condition I submit it

I have mailed a package containing them to day to your address saving a small amount of specimens

Yours

December 11 1877

Acknowledged receipt of the Gulf & Florida mosses by a postal card — mentioning the Fernandina of last enclosure & new Florida Sphagnum

112

L. Lesquereux Esq Cambridge Dec 19 1877

My dear Sir

I have this day returned by mail the Florida & Cuba mosses named in a small package —

I have not had time to scrutinize my mosses returned — and now I am about to leave home for Philad. where I expect to remain a week or more. See Mitt. See Sullivant

— 127 ~~Gymn~~ Weisia Barbula — Pottia Barbula Mitt. is the name of this number 127 of Sullivant's collection which you suggested might be same as No 174 of the present returned parcel it is Barbula ~~Weisia~~ —

I send my Wright Cuba specimen which please return —

of this 127 I have cut up many capsules & I failed to find a peristome and I looked it up in Mitten & so found it and with p. 136 & C. Mal. Syl. 1. p 558 — Sullivant

— Fissidens No 127 132 141 and 165 present parts are all the same and if not F. decipiens they are new. I send sketches — the small one is the male flower (plant also) exhibiting a very peculiar form — the male plants growing on a fruiting plant — I could not find male organs any where else and only this specimen.

I have specimens from Austin which as I leave home now I cannot submit — will do so on my return —

One plant is dioicous – stems short & branching or simple: – leaves erect spreading incurved when moist and much contorted when dry – margins entire undulate inrolled in the upper portion canaliculate in some measure. – nerve broad mucronate and in one the only one with a quite extended point which I have drawn; finely papillose on the back, cells very pellucid finely oblong upon the base one third length in the upper portion minute round becoming somewhat oblique near the apex. Perichetial leaves conformable except the innermost which are narrower and smaller I have hastily drawn on another slip capsule cylindrical and slightly inclined brown on pedicel dark red, ½ to 3/4 inch; operculum long subulate inclined yellow color – (did not detect an annulus but did cut up but one cap) – Peristome slender granulated oblique red – Calyptra long caudate embracing the pedicel &

Male organs terminal antheridia small with paraphyses – perigonial leaves ovate acuminate mucronate

* The plant which I reported some time ago under Barbula decolorans I find is totally different from this by comparison –

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Cambridge –

Leo Lesquereux Esq
My dear Sir –

I have examined the mosses which I had sent & which you returned for further investigation

— Barbula decolorans Hampe? came to me from Mr. Edw Palmer who collected it at Guadalupe Island but whence the name reached me I do not recollect –

— 38 Schistidium Agassizii Sull – omit

— 56 Bryum – is B. pendulum as I found a very fine envelope with male & female organs then in in good number which therefore takes it from its dioicous character that I had made it as I at the time could not detect the organs so considered it dioicous so that is disposed of –

— Zygodon cyathicarpus Mont is the Anoectangium viride C Müll: Syn 1. p. 682 –
But with regard to the plant I have re-examined it in comparison with Z. californicus and find it identical I got the plant in the packages of the 49th parallel in Herbarium marked Z. cyathicarpus & so sketched it & sent it to you – It is entirely barren and could only have been so named by a comparison of leaves – but as there is no capsule to the specimen it cannot be certainly ~~[illegible]~~ that the Z. californicus is a distinct species with a different capsule and a different inflorescence it is assuredly that sp – Cyathicarpus is monoicous & dry capsule cup-shaped

— Fissidens, N. S. Syracuse N.Y. Rest, legit I have with acids in some measure been enabled to get a better view of vegetation and have made another sketch which shows the vegetation of the N. sp. much larger than in the F. grandifrons, by its side –

— I have made sketches of the Mohr mosses as thought you would like to see them & compare with C Müller descriptions and send them viz

— Bruchia nigrescens – Mobile Mon 77 C Mohr

— Bruchythecium Eurentrosum Florida C Mohr

— Neckera Ludoviciana Florida S. Smith is right –

— Neckera sprucea N. sp. Indian River Florida S. Smith
This is the first time that this plant has been found in Florida I have sketched it making a second sketch on the back also & sketches of the same paper No. 1933 Spruce's Andean mosses for comparison

when Austin sent it to me some time since I hastily looked into it and informed him that it was Neckera disticha — but I have examined it again and have some doubt that it that species and may be new sp. By the sketches you will observe that in Austin's plant the internal linear serrulate perichaetial extends beyond the mouth of the capsule nerve vanishes below the apex — the leaf is ~~narrowed~~ rather more truncate the crenulations rather stronger sorry I could not get a perfect peristome the second one was rotten and the fragment is from an old decorticate capsule — Austin says processes ~~[illegible]~~ the calyptra is smooth naked & mitrate [illegible] why matter ~~some rather broad membrane~~

I might ask Austin to send me a perfect capsule that I might get a good peristome

You will see Neckera disticha sketched from No 1333 of Spruce and Lesquereux states that the inner perichaetial do not reach to the mouth of capsule and mostly the leaves are more rounded at apex vide specimen for my set

I have sent my specimen of Neckera Pabstiana and a sketch — you observe that the perichaetial leaves extend beyond the mouth of the capsule the calyptra is hairy & monoecious so ~~[illegible]~~

* Austin has not said that he abandoned the name of his Synoica — — & accepted my naming his N. disticha

Taxithelium pendulum Everglades Florida Lesq is T. planum see sketches — and is an acquisition for our Synopsis —

* so that our plant being synoicous & smooth calyptra is not that species — and with regard to the length of the inner perichaetial leaves I find them very much in length on the same plant so I doubt whether there should be much importance attributed to this character. I find too that N. disticha 1333 Spruce is synoicous although Mitten and Muller does not mention the inflorescence :

And if the peristome has processes entire it will seem to be almost the only character of Austin's N. Synoica that differs from N. disticha

I have mailed to you a small paper parcel containing the 12 dozen barbs Florida mosses 114. 111. 129. 132. 141. & 165 reported upon in my last letter — I hope you have recruited in health since last card you will think of Yours

Geo Lesquereux Esq

Cambridge Feb 4th 1878

My dear Sir

Our new Syrrhopodon (tortes) new spec. Dan'l B Smith by 1860 from St Augustine & Enterprise Florida

This plant came up again recently by Mr Austin asking me under what name he might introduce it in his Suppl to his Manual as he had it from Florida.

He again suggested that it was not a Syrrhopodon but a Barbula (Trichostomum) which led me to take it up and I have examined it closely and have made up my mind that it is a new Sp of Barbula (Trichostomum) and I refer you to sketches etc sent Decem 15 1876 my No. 93. and again in No. 94 — And now I enclose another full sketch (with plants) made under my high power of the Camera —

When Austin first sent it to me he named it Trichostomum canaliculatum I told him it was not that and convinced him by sending T. canaliculatum for my Spruce collection — I named it to him the Syrrhopodon tortes n. sp. I now find it is not a Syrrhopodon

I have now compared it with the following sp. all of which I have and with none does it agree entirely viz — vide Mitten p 142

1. Barbula Sect. 1. Trichostomum — Flores dioici —

T. chilensis — T. rivulis which is No 23. Cuba Wright — T. canaliculata Hmp T. tenuirostris Hb & Tay. T. canaliculata Mitt & is = No 25 Cuba Wright T. involutum Hb & is = No 26. Cuba T. involutum var — T. australasiae — T. remotifolia Hook mss. The T. linearis Sw, is not T. linearis No 29 Cuba Wright of Sullivant. — T. decolorans Hmp which Mitten thinks was not Torturella W. navicularis Mitt vide p 130 Ef. T. caespitosa altho the bases are similar yet it is monoecious not margins not inflexed I saw male organs in the axils

The only species in Mitten which I have not to compare with it is T. jamacensis brachydontea & schimii you can compare Mitten's description of these with the sketch &c

Cambridge Mass 5: 1878

L. Lesquereux Esq

My dear Sir

Your favor of the 26th ult. is received and its contents have given me great uneasiness — Austin is now in Florida botanizing with J Donnell Smith and doubtless will be from home some length of time —

I am still unwilling to have him join with me in bringing out the synopsis, I consulted with D. Gray on this subject and he advises me not to have any connection with Austin —

He suggests that I should go to Europe and see Mr. Schimper, take lodgings near him and consult him fully on all points remaining until all the disputed points are adjusted — however Mr. S. would decline assistance and decline being connected with me using his name in the synopsis, that I might make proposals to Carl Müller — or Hampe in like manner

And that I ought to write to those Bryologist first to one and if not favorable from Mr Schimper to the

others in the order. Dr Gray is of opinion that one of them would be very glad to be in this connection

And further Mrs James highly approves of this plan and really believes such a course would be very advantagious to my health and she not only accedes but is willing to go with me and give all the assistance in her power

What is your opinion? – would this plan be ~~better~~ a better one than to get all needful information by a correspondence with Schimper – I have no knowledge of the German or French language and it is doubtful whether Mr S. speaks English.

I would like to know your plan of getting out the Synopsis – whether you would follow strictly in Mr Sullivants in Gray's manual or some other more elaborate giving more full descriptions to the genera and species some what after the Schimper Synopsis, Has he altered ~~that~~ materially ~~in his last edition~~ – I have not seen his last edition – Wilson has extended descriptions ~~to varieties~~ giving full synonymy etc. If I could learn your ideas I might think better of bringing the work out and submitting diagnoses to your eye and for your approval ~~not bearing~~ by no means requiring the ~~to~~ use your eyes in any way. I could too consult Austin and make use of information from him – ~~he~~ not having authority and demanding that his notions should be adopted might ~~get~~ so work out a satisfactory manual

Could ~~you~~ we not in some way get up the work ~~work out~~ the diagnoses at ~~your~~ at leisure ~~and we work out~~

That this course will be carried out is not doubtful certain it is understand a proposition

Cambridge March 1878

L Lesquereux Esq
My dear Sir

I would like to know what plants we are to submit to Mr Schimper for his opinion are there any of the Sphagna? —

Should he not be asked about continuing the Genus Micromitrium Austin — or should the name of Nanomitrium Lindberg be adopted = I refer you to Lindberg's pamphlet which I sent you on this subject for the reasons for his new name —

I submit a list of mosses only some of which he may be consulted about — such as you deem expedient — I make the list very full that you may erase —

Acaulon triquetrum Jaeger has made A. rufescens do we accept this naming? —
Bruchia Wallianum Aust.
Pixana Aust.
Donnellii Aust.
Carolinianum Aust.
Sullivantii Aust.
Pleuridium Ravenelii Aust.
(Phascum subulatum L.)
Aichidium tenerrimum Mitt.
Donnellii Aust.
Lescurii Aust.
Ravenelii Aust. Mitt. tenerrimum?
Gymnostomum Rauii Aust.
Weisia Brandegii Aust.

Weisia mucronata Wolf legit
no 3.
6
16.
Fissidens N. Sp from Syracuse N.Y.
Garberi Ely
No 129 & 141. — Garber legit
Trichodon nodulosum Aust.
Grimmia buchyodon Aust. this quadrinit
" Raui Aust.
" N. Sp Oregon
Barbula papillosa foreign sp. sketch
Anectangium Peckii Sull.
Encalypta procera
Bartramia stricta
Bryum Biddlecomiae Aust.
Funaria N. Sp. Gibbons legit
Systrophodon N. Sp & Dunnell Smith
Aulacomnion
Anomodon
Dichylemia N. sp. Upton & Cirodkum
Fabronia dentata
Cryphea pendula S.D.S.
Ravenelii Aust.
Orthotrichella Ludovicina = (Printing) —

Pylaisea heteromalla
Myurium Clorundse Aust
Neckera Pilotrichum Clintonii
Brachytheciun splendens &
Hypnum obtusifolium the fruit
Rhynchostegium curvisetum

To facilitate it would be necessary to have the sketches of these as far as they exist please send such as you have and I will make others necessary to investigate

116 116 –

Cambridge Mar 1878

L. Lesquereux Esq

My dear Sir

I wish you to correct the names of the two Fissidens Nos 132 & 165 of Garber Florida mosses

— 132 & 165 Fissidens subbasilaris I have fully made this out

— 141 & 129 Fissidens — Garber Florida

I have ~~sketched~~ drawn another sketch of this to show the specimen & indicate and refer you to My 113 for other parts sketched

This subject has been brought forward by receiving specimens from Austin

— "Fissidens decipiens D.N. (Fcirrinans Schp) Florida"

— "Fissidens decipiens D.N. (Fcirrinans Schp) Hd Smith Cedar Swamps Urbana Ohio Miss Bu Elleson"

Right

I have sketched the Florida Specimen on the back of 141 Garber for your examination & comparison

I send all of Austin's plants –

— I add a small sketch of No 110 Fis: decipiens D.N. of Drummond's moss –

— Also ~~the~~ a sketch of 108 Fadanlocks from J.H.S. Mueri Exsicat for comparison with all the others

For diagnosis of Fcirrinans refer to Mitten, Austin Cuba mus. page 586 — If as Austin's suggests the F. decipiens and Fcirrinans are identical – The F. decipiens has priority by a year or two –

In this later plant the male organs were dicious in the axils and on one leaf I detected a minutte plant growing much as in our 141 & 129 as reported in my figures former in our 141. I did our 141 I did not find it in axils

A number of other mosses sent by Austin for examination I have lain aside for the present

Cambridge Mar 13 1875

L. Lesquereux Esq

My dear Sir –

I send by the same mail that carries this letter – our Enumeration & the maps which I trust will be received at the same time

And now it appears that we self & wife have determined to make the trip to Europe and that we will probably leave at or about the 1st of May next and so we must get all matters at once in readiness –

You will please write to Mr Schimper and I hope you may have a reply before we go,

We propose to go direct to Strasbourg to be where Mr Schimper is, – What time does his vacation occur? where does he spend his vacation?

I am glad you do not think it will be necessary to take Mr Schimper into copartnership in getting out the Synopsis to do so it would be attended with great inconvenience and he would have much trouble with it and would not have his name connected without a thorough revisal so you will not propose it to him

In sending the next pages of our Enumeration please append a form of the orders Genera & Species How full the descriptions of the species. How you would arrange the synopsis ~~How full the~~ Dr Gray says we may extend the book as much as we please and suggests that we may make it full He says he will bring out the work all he asks is to have the manuscript – He suggests further we might have the illustrations to appear in the body of the work – that is in the margin of the letter press descriptions of the genera

Your old friend

Theo Dwight

from Lindley having made P. Roscanum & adnodadium vars of Pl. sylvaticum or P. Sullivantia comes so near to Roscanum

663 P. Muhlenbergii says I note that you retain this name nothwithstanding Austin makes the sp A stratellum Brid. as Muller has it —

664 P. salifolia Austin
It might be not amiss if this species was omitted until fruiting plants were found

— Plagiothecium elegans you have not given this species

Of Plagiothecium I send sketches etc —
Pl. pulchellum Unalaskka Alaska
Pl. pulchellum from Austin's specimen Mus Sp.
Pl. Passiaeum Austin mss.
Pl. Selkirkii with operculate capsules which ~~have~~ Mr Sullivant pronounced upon
Pl. v. Rhynchostegium) sciluliae from 190 Drum
R. salifolia
and
Rhyncostegium curvisetum & sketch
Tisdalii —
and
Stgh Niccoli two packets sketched from Muhlenberg Herbarium
also
3 packets of Eurhynchia sh with sketches for your eye

Please send the next pages of your enumeration that I may look it over from page 110 —

I do hope you have recovered from your usual indisposition —

117

117.

Cambridge March 1875

L Lesquereux Esq.

My dear Sir —

I have gone over the Enumeration pages 97 to 110 and return it with remarks — I will mention some of them —

The varieties of the species — you will furnish I question whether I have them all

— 595 after B. salebrosum you will admit — B. Thedenii which I collected in several localities on the White Mountains and which you will find it on my No. 108 it is there sketched and pronounced by Mr. Sullivant to be right!
Mr S. says that Lindley calls it H. albicans var. tenuissimum — I will look thro' Lindleys handkeits at the Herbarium for information on the subject

— 597 B. splendens — as no fruit has yet been detected ~~many~~ it may prove when fruiting plants are found to be some other genus — you will find my sketch of it in my No 101 under Pilotrichum —

— 598 B. ventricosum — I suppose you intended B. inventorsum — described at p 49 Torry Bulletin

— 603 B. declinum mitt I do not find it among Lyall's plants —

— 608 B. cedipodium mitt not among Lyall's

— 611 B. campestre I have found repeatedly I think there are distinct varieties —

— † 614 B populeum has varieties

— 615 B. plumosum " " —

† Brach. reflexum Starke Hab on Rocky wht mountains N. H. Oakes & James to be added

— 617 is a duplicated number —

— 617 c Hypocomium flagellare I do not find. ~~If you have an American plant I would like to see it~~

618 etc. There are a number of new species of Eurhynchia which I or we have not seen. I have look out some which present different aspects from E. stelligeram & myosuroides and have made slight sketches & subnied. They are marked O ⊕ X ⊗

629 Eurhynchium striatum Schrb is in Bryol Eur. E. longirostre. I have never seen E. striatum or one under E. longirostre. I should like to see this species.

Genus 6. Rhynchostegium Schp

You may do as you think best with regard to making sections under this genus.

You will have to embrace the characteristic points of the sections under the description of the genus in the case given all as one genus (I had written much on our Enumeration on this point - but which upon reperusal I thought better to erase)

639 R. albulum - Austin got from Mr Sullivant his (Sullivant's) determinations with regard to H. albulum & H. fulvum -

Now! I refer you to a letter from Mr Sullivant Dec 28 1864 to me which I enclose for your perusal the history of this letter I have written on our Enumeration

I got from Dr. Gray Swartz adnot. Botanicae and have copied his description of plants from Muhlenberg

Mr. Sullivant embraced H. albulum & H. fulvum under the H. micans

Neither of these species have the characters of speciosum - Can they belong to Rhynchostegium?

646b Rhynchostegium Rostabii curvisetum Brid I have written all that need be said on this species in the Enumeration to which I refer you. The specimen I sketched sent -

I have no recollection of having received a reply of Mr Sullivant on this my plant - I found it in the Herbarium altho' I felt confident of it

652a I cannot find the new species which you had described Oct. 3/61 from Mr Lansing's specimen I have letter of that date but no mention of it & I have no recollection

652 P. latum - Lindberg has made this a var. of P. denticulatum but Sullivant says No! but that P. latum is a good species so we will keep a distinct species if you say so

I send specimens of P. latum with good operculum -

654. P. pulchellum -

In Sullivant's copy of Bryol. Eur. is the remark that ~~that~~ 1897 (Feb. 18) Lindberg considers this as Plagiothecium nitidulum Wahl var. subcecum Lindb. - and again remarks this is not the true pulchellum Dicks vide Enumeration for all the remarks upon

And at p. 498 - Lindberg considers this as Plagiothecium nitidulum Wahl Verum type & that Lindberg gives as a synonym of this Hyp. pulchellum Wilson Dicks - and Sullivant adds -

This is the true pulchellum Dicks according to Wilson Bryol Brit p. 404 -

Now we will have to make ~~two~~ our

No. 654 Plagiothecium nitidulum and

No 655 Plagiothecium pulchellum

I do not find a mention of "according to Hartman" in his Mus. append.

655a P. Passaeum - I send sketch & plants

655b P. Scitulum - Austin I send sketch & plants & I regret there is not an operculum I submit all I have for your determination Is it a Rhynchostegium or a Plagiothecium

661 P. sylvaticum - Austin gets his notion from Sullivant of mixing P. Sylv. & Sullivantiae

I am hurried now to get this to you. I do not want the whole of the papers and the enumeration sent on. I hope you may so recover during my absence to Europe as to work over the synopsis

I have some mosses recently sent in to determine. I will not have time to do more on the work until I return

I would like to know what particular plants you would have me to submit to Schimper

I suppose you will have a reply from Mr Schimper soon if not already in hand

I do hope you will be entirely restored to health the coming summer and be able to get up our synopsis

Expecting to hear from you in time for my departure. I have my state rooms engaged on the Oder the German Lloyd line to sail from New York on 27th April shall have home a day or so before

Very truly your old friend
Thos P James

— 118

L. Lesquereux Esq. Cambridge April 10. 1878
My dear Sir

I have looked through pages 111 to 114 (the end) of our Enumeration and now return them (pages) with remarks —

— 665 I have this from several localities and from other sources —

— 672 A. compactum — I have not a specimen of Bolander's collecting & it is not in Sullivant Herb to make a comparison — may be it does not come from California

— 673 A. virginianum I have many packets named A. virginianum which were collected by me & others — I have hastily sketched two or several of them and am not sure but you will say some of them are H. fluviatile I think this H. fluviatile should be retained as a species — as you have it 574 may be some of my virginianum will fall under this species. — Austin has made as varieties of serpens — virginianum radicale — orthocladon — ~~virgeo~~ curvipes — paralyticum and virginianum — Mr Spilman is not this condensing too much — I have not found in Sullivant Herb any authority for this —

— ~~674~~ Hypnum Bergenense And I forgot to look in Sullivant Herbarium for this remarks on this species — and have not sketched it —

— Hylocomium carioscum Still I have not found this species rather I did not observe it in Sullivant Herb. — I will look for it. Austin has H. a var of H. triparium — I have the plant from Ontario Mrs Roy —

— 678 A. vaccillans I have not seen a specimen —

— Hypnum Sommerfeltii Do you consider this a var of hippidatum as Austin has it —

— 690b Hyp Bergenense Must you have not inserted

this plant in the Enumeration — Do you consider it a variety of H. chrysophyllum?

— 685 — H. hamifolium — I say Hypum which I collected on Mt Wallard Wht Mts which Sullivant acknowledged in his Addenda — the same as that figured at Bryol Eur T 606? —

— 688 ~~H. fluitans — This is very in so many collections~~

684 685 686 687 688 689 These nos. of the plants of the Enumeration on page 115 are repeated on page 116 in continuation of numbering —

— 685 of page 116 — H. connectatum — the variety quite distinct of fabaceum is from Colorado Downie & Wolf Rockrich

— 686 I have no recollection of being informed by Prof. Porter that he found bearing specimens of this sp. — but I do of his finding fruiting sp. of Thuidium abietinum

— 693 I submit a specimen of H plumiforme M. taken from Lyall's Vancouver Isl plant in a package on the shelves — where there is a good quantity

— 695 I have call your attention to remarks at this no 695

701 H. circulare Mitten has acknowledged in a letter to Sullivant that this is H. Baumbergii Sch a name given prior to his H. circulare, make this right —

— 708b H. ochroceum Turner — you seemed to have omitted this

— 709 — H. arcticum you say same as H obtusifolium Hooke — this latter is unquestionably distinct from H. arcticum — You will see how different by the sketches and the specimens stated in Nos 108 — It has never been seen by Muller & other on fruit — Hall was the first to find it on fruit — I am not sure that these marks varieties of it are really so —

— 711a — H. micans (H Nova Cæsarea Aud). the name micans was given by Swartz to H. fulvum and albulum as you may learn by referring to my 117 — no 639 of enumeration and consequently that name for Wilson's plant is lost — and now as Austin has ~~given it to it~~ named his plant H. Nova Cæsarea and if it prove to be identical with Wilson's plant ~~and~~ which I have sketched and now submit to your eye — Also Wilson's plant — H. micans sketched from a Kellaway specimen — Leimobium micans — and if they are identical Wilson's plant must be called L. Nova Cæsarea — you will find Wilson's plant figured in Brit Bryol. Wilson — All the plants are barren —

It seems to be acknowledged to be a Leimobium

I find a slip in Sull: Herbarium thus —

711b "Hyp (Leimobium) obtusifolium Austin Mss — (I suggest to Austin to call this Hamblyphyllum "Obtusifolium" has been used several times before)

"This is probably a new species unless it should prove to be Leimobium Norvegicum Sch"

"It may be thus described — . . . . . "

"Hab. Stones in rivulets near Clarks de Jesus Austin. Lyall

"By its smaller size scanty ramification prostrate habit & thin leaves with a shorter and loose areolation thinner capsule & all presence of an annulus &c it is distinct from Leimobium palustre

The description & figure of Lim Norvegicum Sch (of which I have no specimen) in Bryol Europ appears to agree very closely with the Clarks Mss &c. Mar 1870 W.S.S."

725 Hyp squarrosum — I get this at Crawford notch Wht Mts — Jones

727 N. Flavescens Aust — I have never seen this & know nothing about it

729 H. Wrightii — vide Mitten Jour. Lin. Soc VIII p. 544 for his description from which you may be able to place it in our Enumeration —

In looking over the Hypnaceæ several species came up — some of which I dotted down on the Enumeration at the end

I will look over species and may find many yet to determine places for

Strasbourg June 4 1878

L. Lesquereux Esq

My dear Sir

We arrived in this city late on Saturday evening June 1st & slept at the Hotel d'Europe — the next day Sunday it rained nearly all day which kept us within doors — on Monday morning we drove up to the Academy and saw Prof Schimper who was just about to come to us at the Hotel I am highly pleased with him, he seems so affable and gentle and he seemed ~~pleased~~ glad to meet us — our party consists of self wife & daughter who met us here & a young lady friend — Prof S. returned with us to our lodgings and ~~we were~~ much to our gratification I delivered your package of mosses which he received ~~with~~ gladly & by appointment self & daughter called on his family finding two prepossessing young ladies his daughters — I & the Prof sat at a table ~~in our~~ before his microscope ~~& he~~ and ~~set~~ to work examining specimens which I brought the Archidea, Dicranums & others some of them he pronounced good species others he condemned — He speaks English well so we understand each other ~~thoroughly~~ fully — He lectures in the morning, and this afternoon we had another lecture going over the Bruchia & a Pleuridium as ~~op~~ above he passed some of them & condemned.

I had brought with me a number of our new species good plants ~~which I gave him~~ which gratified him — I am to go to him to morrow morning & afternoon He is ~~expert & I know~~ & know & believe reliable —

I got your letter written on Dr Sauber's may 11th ~~that~~ ~~the~~ the next day after our arrival — Dr Sauber's letter is very satisfactory — I have brought Physcomitrium Sauberi but not the Physcomitrium gracile — this plant was in the last lot for Dr Sauber — I had sketched it & ~~had~~ not ~~heard~~ from you about this plant and did not know it was ~~Phys.~~ second Phys: gracile — I have not the new species of Bartramia and I cannot recall it now — I regret I have not these two plants. I gave him your best & most affectionate regards complied with your request & he had rec your letter and informed me that you were about to visit the Pennsylvania coal field.

Whilst at London — I made an excursion to Hunt-Newport 63 miles off & visited Mr Mitten spent the day with him & his family — very satisfactorily I was quite pleased with his modest unassuming manner — He is quite ~~at~~ investigation of mosses

and I hope to consult him with advantage —

At London we enjoyed ourselves very much — Sir Joseph Hooker was very kind we lunched at Kew with him & Lady Hooker — and I was his guest at the dinner of the Philosophic Club of the Royal Society and sent an acquaintance there Sir Henry Lefroy — and afterwards met the Royal Society of which Sir Joseph is the President — and then we and Lady attended the Zoological Society — we called on our American Minister a very particular friend of ours Mr Welsh of Phila — attended his reception & he gave us tickets to attend the House of Lords. ~~the~~ An acquaintance Dr Prior a botanist whom I met years ago in Phila this gentleman was remarkably polite to our party dining us and ~~obtaining~~ getting us admission to the Royal Botanic Gardens & Horticultural display

We left London for Ostend and to avoid passed up the Rhine stopping at Cologne — Coblentz Brussels — and ~~to Antwerp~~ ~~and~~ by Rail to Stanley

Strasbourg June 14th 1848

Leo Lesquereux Esq.

My dear Sir

I wrote to you after our arrival at this city which letter I presume you have rec^d — I have been almost every day (afternoons) sometimes mornings and afternoons with Prof Schimper in his study at the University — a mile or more from my hotel — we are at the Hotel d'Angleterre where we have better quarters —

Prof. Schimper has very patiently examined all the specimens that I brought under the microscope and promptly and unhesitatingly pronounced upon their novelty; after going through them all I begged him to make diagnoses of some of our new species, as you wished and this he did most willingly — He is a fine gentleman of a very agreeable unassuming manner and very obliging; he gave me a package of fine specimens of his mosses; I had with me a number of our species which I gave him — he was pleased with them.

I have copied the diagnoses which he made of our plants which I herewith send not risking the originals by mail there I will bring home with and will send them then to you, He has made sketches of 3 of them —

I have made a list of all that I brought for investigation which I submit this enumeration embraces numbers 1 to 38 with their determinations I have left with Prof S. small specimens of all of them numbered precisely as in this catalogue so that if you desire to communicate with him about any of the species you have only to designate it by the number given.

I regret that I did not bring all of our N. Sp from Florida you will observe that I have named new ones — I had all of Austin's that I had rec^d — am sorry that I had not every species which he has published as new Sp.

He lectures daily in the morning and has much work to do being Curator of the museum. He says he will ere long give up lecturing on Paleontology or Geology — He intends going to Paris this autumn to the meeting of Scientists — I invited him to extend his visit to America but he says he is too old

Prof S has a son who is a botanist a returning Jay medical young man and about to graduate in the university

You will find diagnoses of our species viz –

No 36 Sphagnum Garberi N. Sp. No 328 of Garber's Mus. Florida – Prof S. has made an elaborate description

No 5. Archidium longifolium N. Sp. No 102 Garber's

No 9. Bruchia ~~longicollis~~ flexuosa Schwg var. Sullivantii which Prof S. decides that B. Sullivantii to be the species figured in Sullivant's Icones – you will see his description

No 11 Bruchia ~~longi~~ collis N. Sp. which Prof S says is a new plant & is not B. Bryerchiana as Sullivant reported it to be –

No 20 Weisia longiseta N. Sp. from Florida W. S. Foster legit this is not one of Garber's –

No 22 Weisia Wolfii N. Sp. from Canton Ill. J. Wolf legit (W. is what we thought to be W. nanomonta)

No 35 Fissidens Garberi N. Sp. No 43 Garber's Mus I do not know whether Austin has met with this

No 24 Ptychomitrium pygmaeum (Rotaresca) N. Sp. It is one from Kansas No. 386 of Hall's Mus

No 30 Hypnum Watsoni N. Sp. It is the plant that I had named in Watson's Utah Mus as H. imponens

No 31 Hypnum Alaskanum N. Sp. the Alaska plant W. H. Dall legit –

Prof. Schimper has added his new species –

– Orthotrichum brachytrichum Schp. N. S. unpublished and is No 157 Drummond's collection

– Hypnum Bende-Schscacum Schp. N. Sp. No 111 Drummond's collection

– Schwagrichin's Pharcum crassinervium – Remarks on it about its not being identical with Sp. in Bryol. Eur. under same name

– Ephemerum spinulosum

– Pharcum crispum Drummond's No 10

– Weissia Buckleanbeckii Ste. Ste. vide copy of his paper

If you should write to Prof Schimper I suggest that you send him specimens of Garber's Phymnetrium gracile N. Sp & Bartramia N. S. he will make diagnoses

We have had a pleasant visit here as agreable as the rainy days would permit – the Mesrs Schimper invited us to dinner one day last week with Dr Farlow & wife the brother of Dr Farlow the botanist we had a delightful time the Prof & the young ladies his daughters were very agreable & social – The elder speaks English fluently. They enquired very particularly after you and your family, were surprised that you resided so far away from us. I do think if it were possible for you to make a visit to your native country it would go far to the restoration of your health

I was introduced by Prof S. to Prof. Dubary the Botanist of the University and found him a sociable gentleman he showed me the Herbarium of the college Prof D speaks English – ~~the~~ we also went thro' the Botanic garden

There was one plant remarkable which delighted the Professors. It is the Azolla caroliniana which at the urgent solicitation of Prof Dubary had been obtained of Dr Engelmann of St. Louis who had sent it in a living state from St Louis for a number of times yearly but in all instances it was dead on arrival at Strasburg except at the last time a year or two ago at this time Dr E. said it was the last effort he would make

It came and only two pounds of a leaf each of the plant was alive (very minute) and Prof D. placed it afloat in water and it survived – and now covers the big tank of the Victoria & many others – completely covering the entire surface of the water in all the tanks in the green houses, Dr D. says it destroys all the algae – It presents one mass of green surface

There are a number of common trees & plants in cultivation in the garden

In the Herbarium under Prof D.'s charge there are many cryptogamous species. Musci – Lichens – extensive – Hepaticae – Fungi & Algae – Prof. Schimper's Musci are in a distinct apartment and are his private property

It is very extensive & prolific in duplicate

Prof Schimper thinks he is growing old and yet he is my junior

Munich Aug 8th 1878

L. Lesquereux Esq
My dear Sir – I have to day received your favor of the 12th July – I am glad that you have repaired my omission and have sent the two species Physcomitrium & Bartramia to Mr Schimper for determination with regard to Schimper's diagnoses – I suggest that you publish in the Gazette those of the Florida and Illinois species with the authors hereto credit to each as follows

Sphagnum Barbatum Schimper –
Bruchia brevicollis James
Archidium longifolium Sullivant
Weisia longisetata James
Weisia Wolfii James
Fissidens Barberi Sullivant
Fissidens floridanum James
Plychomitrium Pygmaeum James (Cin of Hale & Ally)
Hypnum Wattoni James

Cryphaea pendula Sull is a distinct sp

Keeping the orthotrichum brachytrichum Schp & Plagiothecium pseudo-silesiacum sp for our synopsis as he had determined them for himself (I think Drummond) however not any that I submitted –

After Mr Schimper had examined each specimen and pronounced upon it sp nov. he asked me for the name in every case meaning evidently that we should have the credit of naming & after he had examined all that I had to submit – I ingenuously & especially requested him to write out for me the diagnoses – which he did most willingly – He did not fully believe desire to obtain the originality in any case – I have sent home to Cambridge in a box, from Rothenburg the original descriptions and all the retained specimens

and memorandum made at Shaibey and can not refer only to these matters from memory — I left with Mr Schumpert a small specimen of each plant submitted numbered so that if necessary to consult him ~~on~~ about any of them in particular it is only necessary to refer to the numbers I sent you a copy list of this catalogue as I have not by me the papers above I think it would be better ~~to~~ not to publish any thing until I return home and can consult the ~~[illegible]~~ originals and look into the whole subject — In the mean time if there be any doubt in your mind about any of the species you can ~~consult~~ communicate with Mr Schumpert freely — He will respond promptly I have no question My journey thus far thro the old world has been very satisfactory and I and those of my family who are with me have enjoyed it amazingly — I believe that I mentioned ~~our~~ somewhat of our passage thro England and our landing at Ostend ~~to~~ forward up the Rhine to Strasburg and after our very pleasant sojourn at and about the latter city we left for Heidelberg thence on to Stuttgart — having quite a number of letters of introduction which being delivered brought us ~~many~~ many attentions one I will mention ~~was~~ one to Chief Justice Gaulin ~~who~~ the & ~~spoke~~ his wife spoke English — He invited us all to tea & treated us cordially — Mr G. is a great grand son of the celebrated botanist Gmelin he ~~[illegible]~~ showing a fine portrait of that botanist he showed us a very & other curiosity later this trip — we spent a week at Leipzig at Schumpert's 2d edt of Syndesis two of the publishers — thence we went to one of the oldest towns in Germany Rothenburg a city finished a long time ago — It has substantial walls remain in tact with its very high towns, bastions & turrets with all its quaint old houses made it a very interesting place our next point was Nuremberg which we found very interesting in its old cathedrals museums and ~~[illegible]~~ ancient public buildings — ~~the~~ the birth place of artists of note ~~about~~ Dürer — Hans Sachs ~~[illegible]~~ then on to Leipsic where we were entertained and visited its curiosities and ~~[illegible]~~ principal

* I ought to have mentioned that our eldest daughter (who is part of our company) speaks German fluently having studied the language thoroughly at home and our eldest son who joined us at Strasburg speaks German & French having studied Civil Engineering in Vienna & Munich for nearly two years past so we have no difficulty in passing thro' Germany –

The curious old portions of the city with its ancient buildings is unsurpassed with new buildings among which are two fine theatres – public school & university It is a flourishing city – Henry son paid a visit to Carl Müller at Halle a few hours off – I found him a very agreable gentleman in the prime of life he had not finished his descriptions of the Venezuelan Plants not 2/3rds of them done he works at them at his leisure – He has a splendid herbarium of Mosses – He gave me many interesting plants – he does not speak English

We ~~left~~ made a very for Halberstadt an antique town with old churches & then we went to Thale where we spent a day riding over the Hartz on a ~~coach~~ seeing fine scenery & ruins – and then left for Dresden where we stayed ten days very pleasantly seeing most of the public institutions – the Green Vaults Museum & other sights – then onward to Prague – then to Vienna and on to Salzburg and so on to this great city where we are visiting the "lions" of the city Very truly & sincerely yours old friend

Thos. P. Jones

Cambridge Oct. 14 1878

L. Lesquereux Esq

My dear Sir,

We arrived home a week ago from our very sucessful European Tour — all in good health having enjoyed our trip over those portions of the old world which we visited amazingly: —

On tuesday last, one of my brothers in-law died which has thrown us somewhat into confusion and delayed my writing to you ——

My last letter to you, was from Munich Aug 8th in reply to yours of July 12th 78 — in which you desired to know when I thought you should publish the new species; and who ought to credited as author of these new plants — I trust you got my response — which I wrote from memory as I had sent the Schimper's originals home from Leipsic in a box of items — I now have them and will send them if you desire at once — I had copied them in my letter to you from Strasbourg and in which I furnished you with Prof Schimper's views of the new species I also sent you a numbered enumeration of all that I had submitted to his critical examination and informed you that I had left with

Prof S. small specimens in packets corresponding ly numbered and named – that if you wished any further information you could address him referring to each plant by that number

You mentioned in your letter (July 12th) that you had sent the two new plants to Prof S. – viz – Physconitium & Bartramia – what did he report about them? –

Have you published these new species? if so in what periodical? I have not seen a number of the Botanical Gazette (Coulter) issued since I left for Europe – I must write to Dr Coulter for them – I have some of the numbers of the Bulletin Torry Club but see no Music in any numbers –

On the last afternoon Prof. Schimper brought on the table a bundle of interesting mosses from which he took out specimens of such plants as I desired from the lot – making a goodly sized package

So Carl Müller at Halle did – having but a limited time with him I got a small parcel from him –

Mr Scheab of Gätzer learning that I would be at Paris at the Botanical Congress wrote to me – and then sent me a set of German mosses –

When at Taunton, England (near that city) at Dr Prior's country seat – where we spent a week very pleasantly – meeting at one of the dinner parties given us I met botanists – Genl Munro – J. Bentham – Mr Parish – Dr Prior – and other gentlemen – Mr Mr Parish had botanized in the East Indies & collected mosses there – He offered me fine specimens of his collection which I accepted –

I attended the Botanical Congress at Paris some of the discussions but being in French I did not profit by them – but the grand dinner given at the Horticultural Hall I enjoyed the friends etc finding – some there who spoke English – Prof. Wright of Dublin college – Prof. Herzog of Manchester so that I enjoyed that much more there were some bryologist there Mr Besserle &c –

Have you any thing since I left home from Dr Garber? –

Has Austin published any Music during my absence?

How is your health? are you able to do moderate work on the Music?

~~How is your health?~~ I would be pleased to hear from you most truly & sincerely your

Old friend Thos. P. Sullivant

Cambridge Octob 30th 1878

My dear Sir,

Your favor of the 18th inst came duly to hand — I have worked at times at the Musci — I have had much other work to do since my return after an absence of over five months

I did not expect a reply to my letter from Munich I have no doubt that the reason why Prof Schimper did not write any thing about Mosses was that being from home he had not his microscope with him * Prof. Schimper spoke English quite well enough for me to understand him fully only occasionally I had to request a repetition of words, we got along charmingly, & I did not send any Musci in my letter from Strasburg

*. If Mr Schimper has not written or does not ~~write~~ report on the two sp. nov. sent by you on his return home you ought to remind him of the omission. He will examine mosses willingly — I shall supply him with some desiderata when I get leisure — Sphagnum Austrini — Sp. Portoricense Hypnum imponens etc — I do not know that he had examined the Mosses which I gave him from you —

I have looked over the original diagnoses of the new plants which I submitted — I fully understood that ~~the~~ he did not expect the credit of the Sp. Nov. as he would ask me to name each sp. after writing the description or after having examined the specimen — though I did not ask him if he claimed the credit — further he has written on one or more of the diagnoses, Sp. N. "James." —

I think that these descriptions of Sp Nov should be published somewhere — I observe that you have been publishing Articles in the Proceedings of the American Philosophical Soc^y — would you like to have these in the Transactions of that Soc^y? or would prefer to have them appear in the Proceedings of the American Academy Boston? I am a member of the Academy & probably you are — or would you have them in the Botanical Gazette or Bull: Torrey club

you ask me whether they should be given in the latin - or that ~~they~~ you should ~~be~~ or translate them - you may do as you choose in this respect I will if you say so make an accurate copy of these Sp. Nos. for the printer taking them up in their order and embracing Schimper's Sp. Nos of the Drummond Musci in this position

Please reply to this at an early day that I may go to work in transcribing - I will send my copy - the original diagnosis and the specimens of the plants for recognition and examination of the copy -

If I cannot have your assistance in compiling the Synopsis I shall be compelled to give up the enterprise - but if after the end of this year you can devote time to the work I will go on with you in the preparation for the press

Your old friend sincerely
Thos P Sonney

17. n. 164 (1787) Hedw St. crypt pl 11. fasc 3. p. 72 (1787)

Dicranum capillaceum Br Eur fasc 29 & 30 monogr p. 4 no 1. (1846)

-578 Mnesia Cuchodes in same (Sullivant) p. 28. Mnesia Cuchodes (L.) Schwägr

-526 Cyphea pendula is pronounced by Prof Schimper a new species -

-490 I have examined carefully No 109 of Drummond set - Didymodon heteromallum H & T. and find it identical with Leptotrichum homomallum = L. heteromallum so we can give it in the Enumeration from Drummond - and leave Austin's plant —

Very truly your old friend

Tho. P. James

Cambridge Nov 11 1878

L. Lesquereux Esq

My dear Sir

Yours of the 4th is received - I have taken up your remarks on my letter about the species in Austin's Supplement and now send you additional observations -

I have also selected new species & doubtful mosses for you to select to send in your letter to Prof Schimper - Omit any of them you think not necessary to have his opinion on - The numbering on the packets on the left corner is a continuation of my list left with him

In conversation with Dr Gray about the journal in which the new mosses determined by Prof Schimper should appear - He is decidedly of opinion that this list & diagnoses should be published in the Proceedings of the American Academy (Boston) as its position ~~and~~ or standing commands the highest respect & would be read by scientists abroad. He thinks to give them to the Botanical Gazette or the Bulletin of the Torry club they would not be seen by foreign bryologists so much - and in the Proceed of the Academy they would not be garbled and contain no errors —

I shall now copy them in a fair hand for the printer and submit copy to you - There are some obscure words in the original which I wish you to make right - I will leave a space below for remarks on each plant

Dr Gray is anxious to know with certainty whether you will proceed with the work of preparing the synopsis for the printer "after the end of the year when you will have finished your paleontological labors?" you did not inform me on this point in your last letter. I told him unless you would assist me I must

abandon it — If we ~~do~~ give up the work the Dr. troy will give into the hands of Austin this I believe would be unfortunate for it would then be bunchinel with much trash —

Austin's Supplement

4.56 Ephemerum crassinervium Schwg. & Sullv. I do not find any remarks on Sullv. Hebr. on the E. papillosum packet about this plant being a syn of E. crassinervium you have it in the enumeration as — 7. Ephem: papillosum a distinct species but if you think it is a synon. then have it as a synonym —
(vide Schimper descriptions brought home by me viz — Schwagrichen's Phascum crassinervium is a Pennsylvania moss and the same as Sullv. (Jones) Eph. crassinervium but not identical with Eph. crassinervium Bryol. Eur. which is Phas: stomophyllum Vail (Ephem stomophyllum Sch. Bryol. Eur 2d ed. so it will remain Eph. crassinervium Schwg —
vide also his description of Eph. spinulosum which he thus makes a distinct species —

4158 — Pleuridium sullivantii Aust. There is no label with this name in Sull: herb. as written by Austin I think it is a recent name by him. This plant in Austin Suppl. is the same as Drum. mosses and the same as figured in Sullv. Icones but it is not Phas: nervosum of Hooker Musc. Exotici t. 105 — I got a very small packet from Herb. Sullv. marked Phas. nervosum nervosum Hook which I infer came from Hook and is of the original sp. — the leaves of this plant are much shorter than Sullivantii and — areolation of larger cells color a lemon yellow and in aspect quite different = Phascum nervosum vrum

I have had Austin's Phas. Sullivantii under the microscope & it is identical with Sullivant's Jones & the same as Drummond's 1010 Southern states Mus. and is different from Hooker's Ph. nervosum from the cape of Good Hope — this illustration is not good in Mus. Exotici —
The following from the Herbarium — I have had under the microscope
Phas. nervosum verum cape of Good Hope
" " collected by Wright in Rodgers N. Pacific Expl. Exped. — — — —
Phascum nervosum Hook. Juan Fernandez H.B. Montagne Narrow leaves
Phas. nervosum Hook New Zealand. — —
Phas. nervosum N. Zd. Colenso — — —
— — — — — — — — — — — —
Notwithstanding this Sullivant could not see in all any specific differences — —
— — — — — — — — — — — —
— — — — — — — — — — — —

4661 — Bruchia Carolinæ Aust. I do not find any label in Sull. hab. of B. Carolinæ or B. Ravenelii var. Carolinæ? However Schimper pronounces this alone as unquestionably B. Ravenelii —

4663 Bruchia texana Aust. Schimper says it is a distinct species & we thought so vide dry moss in Bull. Torr. Club

4485 Swartzia montana — I find in all Book by S. O. Lindberg — Revisio critica Jungermanniorum Fl. Danica p. 16 = tab 1000 fig. 1. Swartzia montana Syn. — Bryum montanum Lam. Fl. Franc. 1 ed 1. p. 48. n. 13 (1778) all Fl. Suecica 11. p. 289. n. 2466 (1785)
Mnium capillaceum Sw. in Nov. act. soc. upsal IV p. 241 excl. synon. Dill (1785)
Bryum capillaceum Dicks. pl. crypt. Brit. fasc. 1. p. 4. t. 1. f. 4 (1785)
Swartzia capillacea Ehrh. pl. crypt. exs. dec

Cambridge Nov 22d 1878

L. Lesquereux Esq
My dear Sir

Your letters of the 16th & 18 inst are received – I send them to Dr Gray as soon as they come to hand. He was much gratified at the prospect of your going vigorously to work in preparing the Ms of the synopsis.

He is very desirous to have you to come to Cambridge and to arrange the plants of Bullock's Herbarium for mounting on his herbarium paper to be placed in the Harvard Herbarium where he thinks they will be safer and more accessible in the cases of the outside of the main Herbarium. He wishes you to make the selection of the plants, and he will appropriate a sum altho' a small amount from the Herbarium fund in compensation for a month or so. And he & I think we could work more rapidly & efficiently together here.

I have copied for the printer the Schimper diagnosis and send the work, also the originals. I wish you to compare closely my copy with the originals, on some work, I have marked ? in the margin to which I call your attention and to the whole copy, that it may be correct for printing. I send also some of the packets that have remarks thereon that you may recognise the species.

I have left spaces after each for you to add remarks on the species.

The opening remarks you will amend alter or extend as you please.

I have not added your name or mine to the Sp Nov. this you can do –

Dr Gray was pleased to know that you consented to have these Sp Nov. appear in the Proceed of the American academy

we can have whatever number of copies of the article we wish

You have I infer sent the doubtful sp.s to Schimper for examination &c and that you have added some to those I sent you.

I entirely forgot that you had sent to me most of the plants we had under discussion from time to time and therefore I did not look out from those which I regret sincerely

I am in hopes you have sent those that are doubtful to him and may be those enumerated below.

I have looked over this stock of returned, and find the following some of which might be sent to Schimper I will send such as you think expedient of any that you may not have sent already

— The two Orthotricha of Hall, Oregon on which you remark — "Two species of Orthotrichum not yet recorded Nos. 82 — Lesq" their names not given

— Homalothecium pseudo-sericeum Alaska Kellogg "or H. sericeum Lesq"

— Plagiothecium Pascuense Austin

— Plagiothecium subfulcatum

— Thuidium gracile var? Dallas Texas Bell.

— Thuidium —? Silver Spring Oakland Florida W. L. Foster

— Hypnum Sonatophyllum San Diego Cal Palmer "I know nothing about this Lesq"

(103) Eurhynchium — Oregon E Hall (103) "May be new Lesq"

(115) Hypnum Oregon E Hall (115) you write "I dont recognise this show it to Schimper Lesq"

— Hypnum ~~deliquum~~ Alaska Harrington "Dont Know Lesq"

— Hypnum salebrosum var? Byberry Pa. "I take it to be a var. of H. lecheum Lesq" "this plant not a new species S.S."

— Hypnum Montreal Canada Watt "may be a Leskea or Pterogonium filiforme perhaps a form of Sobreura Lesq" "it is barren

(151) Hypnum palustre var? Royston Pent Mr Ray "no H. palustre: stems too thick may be a var. "of H. irriguum like the old H. fallax Bid. a form "which has not yet any satisfactory reference Lesq"

— Rhynchostegium R. curvisetum Teesdale near "may be Teesdale cannot the Schuylkill 1884 barren "decide from the sketch Lesq"

— Hypnum subimponens Lesq.s California Kellogg "The perichaetium is like that of H. imponens. But "you make the inflorescence dioecous. It is some- "what like H. fertile or H. circinale — compare it "H. circinale stock which we have from Oregon. "but which is monoecious I find nothing exactly "like this Lesq"

— Hypnum Bergenianum Austin Florida S. S. Buck "may be something new — it is not a var. of "Amb serpens Lesq"

— (55) Hypnum Southern Utah 1874 "Looks like Amb radicale Lesq" (Not so in its aspect S.S.)

— (224 22) — — — — Illinois Hall Cy. very pretty barren

— Amblystegium enervo? Goat Island S. S. Jan "I think you have here both H. subtile & H. Sprucei "I found both at Goat Island very common "H. enervo has longer acutely pointed operculum"

— (33) Amblystegium — Limestone rocky Ontario (33) "very fine and unknown to me might this not "be a new species — Hyp. macrocampsteodon I should "much like to see a good sketch of the Perichaetium "tion of leaves especially" Lesq

— (33) Hypnum — Sandusky field Buckshot Mr Peck "not H. enervo! I do not recognise it Lesq"

— Hypnum confervoides Heidelberg Mr Austin "Looks like H. tenuissimum Lesq"

If you wish me to send to Schp please designate which and what other plants I may send

Shall I send the packets with your remarks on them to Schp — or without any.

Your old friend truly

Jno. P. James

Cambridge Decem 14 1878

S. Sargent Esq
My dear Sir

Your favor of the 11th ~~since~~ is received
With regard to the ~~two~~ our new species we will leave
them all as sp. nov.

I did ask Prof Schimper if he had Lindberg's
publications he said he had – I told I wished to
refer to the article on the Micromitrium but
he did not get it out at the time he being en
gaged with some of our plants – I at another time
remarked that I would like to see Lindberg's
paper on the subject – but still he did get it for me
~~so that~~ I did not think of it when we finished
our investigations so I did get his opinion –
~~I believe you kept the pa~~
You have Lindberg's paper ~~which~~ I sent to you on this
subject and can refer to his remarks –
It probably would be as well to adopt Austin's other
name synoma for the three micromitriums = M. aus-
tinii M synoicum & M megalosporum ~~the other~~
~~Ephemera~~ ~~to~~ return these under Ephemerum would hardly do
for the position they stand in suppl. Jaeg
What do you think of my writing to Austin about the
matter? He ~~has~~ has been sending plants to me – and
asking ~~a~~ a dozen specimens for comparison with his
Florida specimens which he promises to send to me
as soon as he gets them named – I do supply him with
the Spruce Land Specimens – He sent me two orchestidia
lately = I am looking into them ~~one is a specimen~~ –
I ~~had an interview with~~ consulted Dr Gray about the article on the
new N. America Musci ~~reading~~ it He approves highly with
all your suggestions and recommends that you ~~change~~
~~contract or~~ extend your remarks & ~~combine~~ discuss all the
outside questions ~~leaving the~~ note ~~trained~~ the synopsis
with ~~original~~ original matter ~~having it all and~~
~~have it free to~~ and thus make a more lengthy
memoir
~~three prefatory remarks~~

I have reexamined the ~~two~~ Mohr Orthotrichums &
find that No 2. is O. speciosum by the ~~[illegible]~~ lengthening of the pedicel
by light striae of the capsule by the form ~~of~~ of the leaves ~~and have~~

~~have now compared~~
Not is O. Hutchinsiae by its characters I have now compared them with Mr Sullivant's accurate specimens on glass — the O. Hutchinsiae being so small that I did not think of looking

I will return you the Enumeration or Catalogue with the specimens skeletons and other papers soon —

How long will it be for you to hear from Prof Schimper will he not send diagnoses of the Physcomitrium and Barbula in time for our article? I have gotten out for Prof Schimper a goodly number of American mosses from my herbarium — he mentioned to me that he would like to have good plants of several species, so I selected quite a parcel of choice plants which I will give to Dr Gray with another larger set of American species for Mr Sohab of Pisa to send thro' the Smithsonian Institution to Leipsic

In getting out these sets I found a number of plts of doubtful species — some of which I ought to have had with me — I may send some in my letter advising him of the sending of the set.

I understand you have sent those that I submitted to you to go in your last letter to him possibly he may forward his report before we get our article into print

It is decidedly better to let the authorship of the new species be Sp. nov.

Your old friend

Th. P. James

Cambridge Feby 11 1879

My dear Mr Lesquereux

I left your letter on Dr Gray's table yesterday not finding him in the Dr at once replied thus -

I should not care a snap whether Rau published his catalogue or not - nor how soon he does it

Cant conceive how it can trouble you

But if you say so I will announce your book in Am Jour Sciences It is about time.

I can arrange the publication of your new species in the Acad Proceedings no doubt should like to read it by little wednesday evening

But Rand as they are for means I doubt about them printing your full catalogue

If I announce your book Muscologists (Bryologists he must say) will see the catalogue of Rau must be rare indeed

Dr Gray called on me this morning and said he did see why we should be so irritated about Rau's publishing a catalogue - He says let him publish it as soon as he pleases it will do no harm it will be incomplete and be of not much value

The I asked me if he might not announce our paper at the meeting of the Academy of Science to-morrow by title - I consented that he might do so under this

Characters of new North American Mosses
By Leo Lesquereux and Thomas P James

He thought we ought to allow him to announce the species as about coming out in Silliman's Am Journal says - I requested him not to do so until I had communicated with you on the subject & get your views as the Journal does not issue until more than a month it will time though say in two weeks from now he should be informed

— 229 Hypnum acuticuspis Mitt. It is diœcious as I cannot find male flowers on the stems of the female nor elsewhere — I infer it to be H. acuticuspis Mitt. from his description — its very long point of the leaf the cells of the base are pale, are bossed out & coloured — Mitten had but two barren stems to make it of

— 235 Hypnum — ? It is monœcious and cannot be latum you have my sketch I add now a sketch of the male flower

I have a long communication from Austin came while I was absent ~~[illegible]~~ with a number of plants for examination as plants grown in our paper in the proceedings of the Academy and asking a number of questions about the species published there and offering me a copy of all his articles and promising to supply me with specimens as soon as he can of any of his I may want he criticises our ~~[illegible]~~ of the descriptions in the paper and asking for specimens I will now take up his letter & reply

I have also a letter from Prof. Macoun expressing himself extremely pleased at ~~receiving~~ my report on the large package of Mosses sent me and he adopts all the changes I have made and he shall make the alterations which I suggested in his next edition of his catalogue "He is so satisfied with my careful ~~work~~ that he can safely let my specimens pass with my names."

I corrected many errors in his names in his packets sent were a number of duplicates. He sends me another package of some 40 to 50 packets which I will examine at leisure

I have not seen Dr Gray since my return when I called he had gone to Providence with Mr Cauby about Olney's will — He told me that he and several others intended about this time to go to North Carolina to see the Rhododendrons and the Shortia —

I have enquired about when the synopsis will be published

Cambridge April 1879

Dear Sequoyah Esq

My dear Sir

I send by same mail 25 copies of our article No X. Proceedings American Academy of Arts &c. I have sent to a number of Botanists you list herewith so you need not send to the same — If you run short I can supply you 100 copies came in —

I send a number of plants for your examination and you will keep all &

— Physcomitrium turbinatum N.S. Carlillier

— Anictum rosethepelina N.S. C. Muller

These he gave me at his house in Halle when I went out of Leipzig called on him last July — Keep them

— 36. Bryum pulchellum! Cascade Mts. Prof Macoun

— 52 Mnium stellare var ? Pace Rim "

Under the microscope the leaves are precisely those of Mn. stellare — but the color and aspect varies from any I have seen — The speculum has a decided apiculus — a marked difference from descriptions I send all the specimens of plants

— 120 Homalia olivacea Mitt. Lid Sin. Jas. 49th Par. Mr Mitten gave me a specimen of this sp. which I visited him at Hurst-pierpont Eng — and 120 agrees precisely with it —

— Myurella julacea Mt Lead Lake B.C. Prof Macoun

— 418 Thuidium tenuinervum Macoun (non Sound) it the first time I have seen it

— Cylindrothecium — — — (vide Sketches Prairie Co Penn H. S. Olney Esq 1865)

I do not find it described —

— 119 Sphaiseu — — from Prof Macoun vide Sketches — It differs from any specimen that I have yet seen Hope you will make it —

— 204 Hypnum (Homalothecium) pseudo-sericeum C. Mull

— 218 Hypnum Cascade Mountains Macoun — sericeum var with a remarkable upright capsule —

— 226 Hypnum marked H. Schreberi which it is not — vide sketches — I send a specimen of Hypnum Schreberi to compare which in Paris I received a large package of German and other foreign plants from Mr. Schrab — —

— 227 Hypnum acutiusculum Mitt vide sketches which compare with Mitten description in Linn Soc Journal ——

— 232 Hypnum — See mell. Mt (Macoun) vide sketches — I at first took it to be H. reflexum but on comparison with H. reflexum given me by Prof Schimper I discovered it was not — that sp. the areolation is far more open than the Schimper reflexum.

— 235 Hypnum —— Portage La Loche (Macoun) vide sketch I think this is sp nov —

— 433 — Hypnum — Lake Superior Macoun vide sketches — I do not know them

Some other you will find

Keep all & report — on a slip —

I sent you some time since a Hypnum Summersii — I have just received a response from Mrs Summers on which she says that Prof Eaton had informed her that he thought her plant was Antitrichia curtipendula var gracilis dull & lay I at once put a specimen under the microscope and it proved Anti. curtipendula — It is strange that I did not examine it microscopically — but it was reported as named by Prof Schimper I took it for granted — But as Mr Summers had sent two seperate packets from different localities it may prove that one was a new Hypnum Prof Eaton had sent it to Prof Schimper there were several mistakes in the names of the plants she sent to me all named — They had been examined by some one hastily —

Lenox Lyceum Cambridge June 3 1879

My dear Sir

I returned home some days ago very much benefitted by my month's sojourn in the more mild climate of Philad^a — I examined S. Mohr's Sphagna and sent them with remarks to him — Mobile allat^n on the 28th May (see copy to him) the labels which I put in the packets I did not send so I enclose them for your eye —

I now give you my notes of the returned mosses and on those sent to you last april mostly from Prof Macoun — viz —

— Myringia pulvinata — It is the Leskea pulvinata of Brk & Schp t. 471 — I refer you to Schp. 2^d Edition of his synopsis p. 589 for Myringia —

I made the enclosed sketch from the specimen and afterward compared it with the illustration t. 471 —

— 232 Hypnum (reflexum?) I have examined this and cannot consider it a var. of H. Stokesii — As it is more ovoid — the leaf has less prominent serratures the alar cells are larger more of them yet the shape of the leaf resembles somewhat H. Stokesii — the perichaetial leaves are not so long pointed serrate and branched or nervous — and is not pinnately branched as in Stokesii I do not find any plant like it and therefore think it a new species.

I have now separated all the plants in the packet and find many H. catenulatum — few H. salebrosum and not many of the new plant — There may be a mixture in the specimen so I send you a few of the best specimens you will observe it distinct — form I send a few of the best specimens I have very few plants nearly

* the pedicel has less prominent papillas & not so — You have my sketches regret — there is no speculum

— 52. Mnium stellare var? — I looked into the packet and find also M. spinosum — this species did present itself until now — the fruiting specimen I had not examined which I now find to be M. spinosum only one male plant of M. stellare —

— 119 Pylaisia — is surely a new plant — I do not find any such Pylaisia described — you have my sketches

— Cylindrothecium — you have the sketch I thought it declared from selection

— 226 Hypnum (Schreberi?) — Not H. salebrosum being dioicous and pedicel roughened

It is not H. lacunum as its pedicel is papillose

It is not H. campestre being dioicous & the stem is closely pinnate branches short the leaves densely imbricated on the stem similar as in campestre & are less strict — areolation very narrow & long distinct from H. campestre and the square moderately large cells of the b. & the large perichaetial leaves not so long & naked pedicel very rough — point

June 12. 1879 -

My dear Mr Lesquereux

I have copied most of Austin's letter that you may learn what he thinks of our mosses - as new species of which some he claims to have described and of others which he asserts have been described

With regard to Bruchia nigricans - I have not good specimens of this sp. his main difference rests in the larger spores - and shorter leaves. The four plants which sent me for identification The Sphag Garberi had quite a different aspect the form of leaf differed - He has been thought good authority on the Sphagna - and he may have lots of it I could send him only one stem but that was enough - he considers it S. rigidum var humile from a hurried examination - Prof. Schimper did consider it sp. nov. and he is good authority -

Fissidens Floridanus - I did not find it the same - he now considers as F. incurvus near the typical form of & much like if not identical with F. limbatus - Now! when I got out Garber's packets of F. Floridanus I could not detect a single specimen which corresponded with our description of F. Floridanus and I came to a conclusion that the packets #'129 & #'141 Garber came near to F. decipiens - I could not find one to Dr. d. I loaned my pencil sketch which exhibited flores fem. axillares ad medium caulem disposita" The specimen which Schp. examined had this character - thus the description - I left this spec with the Professor - Can the specimens which I returned to you from Garber have any thus described? - You have some ——

Bruchea longicollis, did not compare fully so I thought is a distinct sp -

Hyp. Walteri which had named Hyp. recurvo-marginatum but not described I did not think corresponded with our specs - Prof Schimper remarked with regard to our plant that it was near Hyp Hungarici and he perhps gave me a specimen of which I sent one to Austin

It does seem that Weisia longseta is the same as Austin had named W. viridula var. australis but Prof. Schimper made it sp. nov. & the new name stands. W. Wolfii will surely had that species long under discussion to make it distinct from Weisia viridula var. Schp makes it sp. no. Mr Wolf has recently sent me largely of what he considers that species but fruit rarely —

The remark — by its monoicous terminal inflorescence I copied from your observations made to Fissidens Floridanus page 138 — I did think of the inflorescence being dioicous

of Archidium longifolium Austin says it is description of Archid. Lescurii — Now the spn which he sent me as A. Lescurii you pronounced it no Archidium at all from my sketch and so did Prof. Schimper by an examination of the plant — Austin may have sent a wrong specimen to me — and he says the specimen which I sent him and which I took from the original packet is A. ohioense

Bruchia Carolina — specimens from Austin himself were examined by Prof Schimper and pronounced as B. Ravenelii

Austin has not complied with my request to furnish me with a full description of his terms — Autoicous & paroicous — he seems to confuse these — Can you furnish the exact meaning of ~~those~~ those terms ?

I have been and am yet engaged with Prof. Macoun's plants

I am now in good health ~~but cannot labor~~ you not quite so strong as before my illness but work up long of a ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~

Cambridge July 1st 1879

My dear Mr Lesquereux

Your favor of the 22nd ult was received in due time. — The specimens (3 or 5) of Myringia pulvinata were omitted — I have a packet from you (Anglia) of it a small ex ample with a larger one of Hypcatenulata?

In reply to your I do positively decline joining with Austin in the preparation of the synopsis I know that we could in no wise harmonise and that I should all the time be in "hot water" with him and I should be constantly in trouble which I will not ~~seek~~ do.

If you cannot find some one else to join you, the work will have to be abandoned, but if you can secure the services of such an one, I will put all my material in your hands — the work on it has so far progressed that it would be labor lost to stop now.

If you will continue with me in the preparation of the synopsis I most heartily offer to advance three or more hundred dollars to you and rely solely on being refunded from the profits of the sale of the synopsis after its publication

You are now at Princeton and so near to Cambridge and as the fare from New York to Boston is very low I beg you will come on and we will talk over and arrange matters I do earnestly request you to come directly to my house and make it your

home we will have a study all to ourselves and ready access to Southwinds herbarium.

I promise you a most hearty welcome from Mr James & myself and you can remain as long as you can be spared from Columbus all summer if you choose free of charge after the 15th we will have all our own way a party from Philad will leave us then for the mountains

Cambridge Aug. 12th 1879

My dear Mr Lesquereux

Your favor of the 9th inst came duly to hand.

Dr Gray is very anxious about the synopsis and wishes much that it should be gotten under way for publishing – I could only inform him by handing your last letter to read. He infers that you may come to Cambridge; and if you do, I desire to be at home the whole time of your visit; and would like to know at what day to expect you as I wish to attend the Saratoga meeting of the Am. association commencing 27 August and it will continue a week or more – I have been at home all summer, and think some change may be of advantage to me I am not so strong as I was before my sickness this winter

I hope you are well and will be able to prosecute our work vigourously

Very truly yours old friend

Thos P. Janney

Cambridge Sept 19 1879

My dear Mr Lesquereux

I hope as you are working so industriously on the fossil flora that you will soon finish your labor on it, and be before long able to take up the Bryological work of the synopsis. Sorry to learn that your health is so precarious, but I trust when you are through with the coal flora that you will find relief in turning your attention to the more congenial study of the mosses and that your disturbed state of your head will at once disappear.

I went up to see Dr. Gray this morning. He has not heard any thing of the Catalogue of Mr. Rau – nor has he any information about the probability of his or their purpose of issuing a synopsis – even if they do publish one, it would be wholly unimportant – that it would not interfere with us if they do so.

The copper plates used in the manual are in the hands of the N. York publishers and are held by them subject to Dr Gray's order. The N York house are not so desirous of publishing our synopsis and are willing that another party may do it

I have had several letters from Mr. Cassino of Salem the publisher of Eaton's splendid ferns &c. He is desirous of printing our Synopsis - and he has also applied to Dr. Gray about it. Dr. G. thinks it is well that a party should ask to have the synopsis and bring it out rather than that we should have to ask a party to do the work. Mr Cassino has not much means but is very desirous of publishing scientific works. He now has an office in Boston - I have called him and requested him not to announce the synopsis in his monthly issue of works coming out - We have not made any propositions to him - He is connected in some measure with a printing establishment in Washington St and in some way doing his own printing

I am truly sorry for Prof Schimper. He was sick for Mrs James and our party has frequent intercourse with him and his family, saw no symptoms nothing of the sadness and dispondency you speak of I saw him almost every afternoon during our stay of 3 weeks and he always was cheerful and very social always so lively & genial that a state of despondency or disease never occurred to me - I regret that he should have given up his professorship - the retention of it would have had the effect to divert his mind. Has his eldest of the two daughters that are not been married since our visit at Strasbourg? we have no recollection his family (or himself) speaking of a married sister living in the country

I do not think it is necessary to put the Andraceæ and Sphagnaceæ at the end of the synopsis - Schimper does so - but to do it will necessitate a change of the genera on the plates Dr Gray says that we can transfer any of the plates to stone & think he means we will have to introduce new genera

What do you think of my writing to Mr. Miller sending some of our doubtful species (we ought first to name such provisionally) and asking for some of his specimens (or smaller samples) of the 49° parallel? -

I return a packet of yours marked (all the stock) return some 6 12 - I question its being an Anomodon and yet I do not recognize its position - I have sketched leaves - the areolation is however that of an Anomodon and probably is that genus fruiting specimens are very desirable -

I will send other plants & sketches onward towards Hypnaceae in my next consignment

I am quite well and hope you are in good health - you must not labor too hard and be worn out

Your old friend truly
Tho P. Jarvis

Cambridge Dec 1. 1879

My dear Mr Lesquereux

I have examined carefully the Mosses collected by Dr Garber and rec'd on the 24th ult. and find them to be viz:-

~~2~~ No. 338 Trichostomum . . . . .
It is certainly dioicous, yet I could not detect male organs none on the stems or perichaet of the fruiting plants - The leaves are undulate wavy those of the perichaetial l. are somewhat obtuse like T. tophaceum - but it is not sp. The areolation is distinct from B.T.S. illustration of T. tophaceum The capsule when dry is somewhat strate the operculum is long rostrate annulus more than one row of cells pretty & prominent - the peristome much as that of T. tophaceum -

— 339 Archidium tenerrimum Mitt Barren the same areolation as Garber's 108 - Coll. ~~Oct~~ 1877.

— 340 Archid tenerrimum Mitt same as Austin's sp. from Longlade Florida ~~L.~~ Buck Barren It is of a dark or black color which is doubtless by the position of growth -

— 341 - Bryum — barren seems to be B. coronatum

— 342 Bryum ? barren -

— 343 Thelia Lescurii ?

— 344 Mnium rostratum barren

Cosmopolitan Dec 1. 1879

My dear Mr Sequoia

I had sent to me by Austin some Mosses which came on the eve of your going to Europe so they were laid aside and turned up March 7 1879 when I replied to Mr Austin's thus - viz

April ~~Mar~~ 28. 1878

Mosses rec. from Mr Austin ~~Mar 7 1879~~

I copy my reply to him and send the sketches which I made at the time & specimens - viz -

The plants came to hand just at the eve of our leaving for Europe - and were laid aside until Mar 7 1879 - my answer - viz

"— Ulota Macounii - Cascade Mountains - O. speciosum - fide Sullivant (Mr. S. makes all of my O. leucoxanthum = O. speciosum - I have the same sp. from Mr Macoun and it does present a different aspect)

"— Ulota Hainesianae - Colorado - seems to be by my sketch to be near O. alpestre I cut up but one capsule I return all as you desire"

"— Orthotrichum Rauii N.S. Colorado Brandegee I think is nearer to O. Hutchinsiae than to any thing else I did not cut up any of the capsules - simply looked at the leaves - It being all sent I return all —

I enclose sketches of U. Macounii and on the same slip is U. Hainesianae - also a slip of the same under higher power - I have no sketch of O. Rauii -

I add some specimens that I have and had sketched since my last consignment - viz

— 330 Campylopus . . . Florida Garber see sketch
— 68 Campylopus? - Dicranodontium? Macoun -
— Dicranodontium Donnellii N.S. Austin. - all I have - Jacksonville Flor. Id Smith
— Weisia . . . . Guadalupe Island - Mr. Palmer see sketch - It is diocious decidedly and not W. viridula
— 105 Trichostomum ~~[illegible]~~ Florida Garber It is barren - see sketch
— 111 Barbula - barren - Florida Garber not Bunguiculata
— Racomitrium? Glen Ellis Mt Mt. N.H. leg see sketch - the cells attached to Perichaet etc do not resemble the areolation is not that of a Racomitrium -
— 73. Bartramia - Vancouver's Isl. Macoun see sketch suggestive of Bartramia U.S. Exp. Exp. 1 Vol
— Taylloria serrata? - Camden N.J. I P.S. leg cap too immature to get a peristome
— 265 Physcomitrium pyriforme var Florida Garber
— Physcomitrium turbinatum Ill. Tracy Hall leg where is this sp published?

Cambridge Dec 5th 1879

My dear Lesquereux.

After mailing the letter I found the packet of Hypnum Schreberianum Sch. St Louis which ~~stick~~ came from my set of Drummond Southern mosses with the sketches made therefrom - And which I allude to in my letter -

I add the sketch of Fissidens Floridanus omitted also

Will you not require soon after you commence work on the Synopsis - The Plants & sketches of the Buchias Archidiums if you do I will send them and any other specimens & sketches that I have

Cambridge Dec 4th 1879

My dear Mr Lesquereux

There is a mistake to be corrected in our article to the Academy at page 108 In the observations on Fissidens Floridanus where it stated that it is related to Osmundaceae by its monœcious terminal inflorescence F. Osmundoides is diœcious inflorescence and F. Floridanus has its masculine flowers not as in Osmundaceae terminal - Now! with regard to F. Floridanus I can not find in any of the parcels from Garber a single specimen with the male flowers in the position precisely as they were in the specimen from which my sketch was made see sketch herewith - and I gave that specimen to Prof Schimper - There may be some in the duplicates you have retained

I also wish to call your attention to Schimper's New Mnioithecium Pseudo Silicicum - I find the original specimen from my set of Drummond's Southern Mosses - (it is the same on the sellers and set) I submit a sketch made from the Drummond plant and to my eye it is P. Muhlenbeckii - Can you point out any differences? I have not sent Austin a specimen

I could not find in any of the sets of Drummond's North American Mosses any that had a calyptra - the specimen Schimper gave is diminutive -

My object however in now writing to you is principally to submit a letter just in hand from Austin which I enclose - I have not answered it in what way am I to reply?

I send some of Austin's plants received some weeks ago when I made the slight sketches within the packets he has not sent me all that he names in his present letter but which he offers to do –
The only plant that has a capsule is Brach Donnellii and it does seem a new species
He has not sent me ~~Hyp Calycinum~~
Nuttera? Calycosendes, Campylopus virginicus & C. angustinetis

With regard to our Bruchia brevicollis I know that Sullivant considered it as Mr Bruchiana and so had his figure so my friend to conform to it – Self made it a new sp.

Some of his remarks seem plausible He however makes our Hyp Alaskanum and H. Watsonii the same species and the same as his H. recurvifolium marginatum also Mitt H plicatile and yet he sees we have the opuculum rostrate whereas his plant has conic obtuse opuculum

Austin says he has no copy of Boyd Europ. only Schimper's Synop of 1860

I have not written to Austin about his micromitrium whether he does approve of Lindbergs name & micromitrium which I think was L's name (I am not sure) I sent the pamphlet which Mr Brookins loaned me with several nos. of the "Flora" a long time ago and which I had sent to you and you returned the Flora but not the pamphlet which contained Lindberg's paper on this subject – this pamphlet you have yet and I would like to have it that I may ~~send~~ return it to Mr Brookins –

I am looking over doubtful plants – am in good health & hope you are improving in condition & will be able to prosecute the most work vigorously

Cambridge Dec 24 1879

My dear Mr Lesquereux

— Your favor of the 21st is just received covering Austin's letter returned and the pamphlet I have read your remarks about Austins letter & will look ~~into~~ through his letter — Some 4 days since I rec^d a postal card from him which I copy — viz "I have now seen authentic specimens I believe of all your new species except Fossidens floridanus Sphagnum cyathiophyllum and Plagiothecium pseudo-silesiacum I have examined them carefully, comparing with the diagnoses and with allied forms ~~comparing~~ and have made notes on them since you sent me some authentic specimens. I suppose you are entitled to my opinion on them, that is if you want it. Shall I send you an abstract of my notes? or have you any objection to my publishing them in the Bulletin C.E."

Under Dec 17/79 —

I replied as follows — viz —

Cambridge

Cambridge Jan 5 - 1880

My dear Mr Lesquereux

Your favor of the 28th Dec was duly received

I am much pleased to have you say your health improves greatly under a milk diet and trust this improvement will continue - And that you are closing your descriptive part of your coal flora

I send on a copy of a letter which I have just mailed to Austin -

I have for days past been sketching a number of the plants of our Sp. Nova and of those he purposed to criticise and publish - I have done this and given accurate camera drawings and sent some specimens for comparisons and his examination after he has thoroughly investigated these materials I think his opinion will be entirely changed & modified I think it best to submit these matters to him before he commits himself by publishing criticisms and provoke discussion

He is to return all the sketches and then I will submit them to you

I have avoided as much as possible giving him an opinion of his doubtful species and have not informed him which and what of his subtitled species we have admitted

Cambridge Jan 16 1880

Dear Mr Lesquereux

Your favor of the 14th is now in hand — I am pleased to know that you are now ready and intend to proceed with our work on the Synopsis

I understood that we were to conform our arrangement to Schimper's Synopsis last Edition, as we quote and number all species in the order of the Bryologia Europea, (of course not the order by Lindberg, Mitten or any other)

The Sphagnaceæ & Andreaceæ will not in that case make the first in the order yet if you think it best we might adopt it as Sullivant has

If you give an artificial analysis it will be made to conform — there may be other genera to add.

The introduction an after consideration as it is common to give it ~~after~~ when the work is completed

I did not copy the first pages of our catalogue — I simply added some notes and returned it hastily so that I have not any part of the catalogue previous to page 54 — Tribus XI Splachnaceæ Fam 1. Tayloriaceæ Gen. Dissodon — No 815 D. Hornschuchii —

Please send me all the previous pages from 54 and I will at once copy them — this can be done and will doubtless be in time for you to begin — Many of my letters at the beginning of the work I did not retain copies of — this is unimportant as you used them

Cambridge Feby 5 1880

My dear Mr Lesquereux

I have copied the "Enumeration" which goes only to ~~and including~~ inclusive of the pages 820 — I want those up to page 1054 all after that page I had copied

I have been making more sketches to assist you in making out descriptions, if any more are required I will cheerfully make sketches if you will but designate them —

I send a list of the species of Mosses which I submitted to Prof Schimper and of those which he pronounced good species — also those which he decided as not good species — I send too the sketches and specimens submitted to him ~~too~~ in a separate parcel

I now send some new sketches of plants of some which are embraced in the "Enumeration" now returned. Some of your enumeration leaves are smeared with pitch — I unfortunately accidently upset my inks on them — I think you can decipher all — but half of it however

I add and send sketches & specimens viz recently made —

— E spinulosum — from Mozanimisy Phila Lq Jenny

— Aspidium longifolium Lq. 2 sketches

— Pluridium nervosum — 3 sketches — one from Aken S C Rowe — one from N Pacific Lq Fred Wright and the other from a cape of good hope specimen from Wilson I think you

— 15 Bruchia vorgenia var 2 Drummond which is a small form which Wilson may have given the name B microcarpa to.

— Sporledera? Bruchia Bryrichiana — Baltimore Mr Bryrich This sketch is from an original specimen from Hampe in Sullivant Herbarium no mature capsules also —

— 2 sketches from the Burlington specimen which Sullivant pronounced as B. Bryrichiana — B. Bryrichiana Burlington N J Lq J P C.

— B. Bryrichiana Northern Illinois Dr Vasey Lq

— ~~Bryum~~ Cinclidotus (provisional) which I got from No 15 Drummond Mosses of the southern states which I think has been overlooked or it may not have been in other sets but prime it is of new

— ~~Sketch of~~ Astomum nitidulum from a specimen from Sullivant & Leq. — sent of many

— Astomum sp. Nov. Canton M. wolf which I think is so distinct as to be considered a new species of how ever after you fully examined all parts and you do not consider it new and only a variety of A. nitidulum — then make it a variety. it is not A. Ludovicianum Sullv which I have made a hasty sketch of specimen that you may compare —

— 108 Dichodontium pellucidum Drummond which I think is Cynodontium Canadense not and that Mitten has quoted it 108 instead of 108 compare it with Mitten description & his remarks on the plant

— 330 Campylopus gracilicaulis Mitt. Florida Sauber the Sauba Specimen is identical with Mittens plant in the Lindsay Spruce mosses — but Austins specimen from Caloosa Florida is not that species I have hurriedly sketched them

— 36 Dicranum (Campylopus) Pauci austin sent

+ — Jungermannia from Dr. Palmer Florida is probably Schreberiana see rough sketch on the back. Sent also the pamphlet from Manispur

Note sketch &c to Mr Rau by Dr Brandegee Colorado

Cus Mosses belonging to Mr Ingraham as it contains Hedwigia Stellaria Hedwig Hypnum stellatum the remarks of Lindby on Micromitrium — Nanomitrium — Generum Eph. hystrix — Phas serratum P. angust. Drum. 2° coll. = On the mounted sp from Sullivant, Drum set is this remark by Sullivant "This is probably "Eph. spinulosum" Schimper mentioned by Wilson in Mysc. Bot" and Lindby n. s. Eph. minutissimum —

— The numbers of the "Flora" with C. Müller's Synop of American Mosses I retain for the present I may wish to look into them when we come to that part of the Enumeration where the species come in — These do not embrace any thing of the Enumeration now returned — Ingraham's

You have the number where Acaulon triquetrum is given by Jager

— X — Schistostega Stenophyllum — In Sullv. copy of Boyd Enr. ed 2d Eph. sessile Nees. has in pencil marked "Ephem Stenophyllum" I have now sketched Austins plant

Cambridge Feby 25. 1880

My dear McLeiguan

I have just rec'd your favor of the 22d inst. As soon as I read Austin's criticisms on one page in the Am Nat. proofs I at once determined not to reply & in no wise to notice it, but treat it with contempt and shall for the future have nothing whatever to do him. I regret that I have thus far kept up a correspondence with him and have furnished him with so much material.

I have been for more than a week past been constantly engaged in going thro' and sketching Mosses from Mitten's set of the Survey of the 49th parallel of latitude. The set Mr Watson at the Nat. herbarium found in a package of Taylor's Mosses which Mr Sullivant had presented to a gentleman of Boston and who gave it the lot to Dr Gray. Mr Watson being in quest of information about Hepaticæ opened it & sent me word of his discovery. I got it from Herb of the College & have been as above at work on its contents which will eventually prove of much advantage to us as we proceed.

The package is marked in Sullivant's writing

"Mosses loaned me by Wm Mitten Esq of England to be returned as soon as drawing can be made" Rec'd Decr 6 1869. W S S."

I understand from Mr Watson that Dr Gray has written to Mr Mitten on the subject so passing the parcel may be ordered off. I have worked up the material. Dr Gray was out when I got the package & may have to part with it soon, but have gone thro' it since and some of the sp. nov. wanting in it.

I presume Mr Sullivant in the hurry has accidentally put it in the Taylor parcel & they lost sight of it.

There are but six drawings made by Mr Schrader I (presume) & it would be best to have the whole thus sketched as such an opportunity may not occur.

Many of the specimens are in small amounts.

I have sketches of all that are requisite but they are

small for our concerts and are made under the cameras all of the same power

I have not yet examined Prof Macowan's music will soon get to work on them as soon as rec'd I dropped him a postal asking him not to give them to another especially not to Austin - He at once replied that "no music after this shall go out of my hands until finally disposed of by you I have sent no music away this fall except to you"

I am sorry that you are so unwell

Your old friend

Wm P Sawyer

in the Bulletin Bot Club 69 new Species
" Botanical Gazette 13
82 " of the
new Genera I did note
In the Scones Sullivant 6 " —

I believe he published a few in the Proceedings of the Philadelphia Academy of Nat Science, in 1869 — but I have no means of learning about them now but when I go to the Botanical Garden I may get the proceedings which if I do find of them I will drop you a postal card with the information

I do hope you will continue to improve in health and be able to work on the synopsis

Cambridge Mar. 31 1880

My dear Mr Lesquereux

I have not had any communication from you for a long time — I am anxious to know how your health is I hope you have so recruited as to be fully at work on the Synopsis —

I enclose a few sketches of plants that will come in the earlier pages that I have made since the last parcel sent you. There are nine sketches of Ephemera all drawn under the same power of the Camera I now draw all specimens under this same power — unless specified I have made many sketches which I will send with the pages of our Enumeration when I get all copied and done — If there be any specimens whatever which you desire sketches please do not hesitate to ask for them & I will promptly respond

The Ephemera we are named on the Packet,

Dicradontium Donnellii Austin is leaves only but this Florida genera fruits seldom

Calymperes Richardi C. Mull Florida Sp. nov is a new genera for the synopsis fruiting specimens are not common you will find description in Mull Synopsis V. 1. p. 52 f

Cambridge April 1. 1880

My dear Mr Sereno

Your favor of the 29th ult. came to hand yesterday after I had mailed my letter to you

I do not incline to write a biographical Notice of Mr Austin ~~& death~~ I am glad to find you will do it

Mr A's death will be serious loss to all ~~who~~ study the Anophytes and not only to all who are interested in Mosses but especially to those who ~~are~~ investigate the Liverworts – He made Hepaticology his specialty – I do not know of any one to supply his loss in this direction

He certainly was an adept and had a quick perception in ~~this~~ investigations of ~~this~~ He was ~~quick~~ prompt in forming his conclusions and probably too hasty in publishing his determinations – which was ~~and~~ occasionally ~~from~~ based on indifferent ~~objects~~

You ask for the number of new plants he has published I have gone entirely through the Bulletin of the Torrey Botan: Club & the Botanical Gazette and find that he has published in the them as follows viz in the Bulletin 42 new species so called in the Botanical " " " 40 making 82. – ~~including~~ also 2 new Genera and of Hepatics –

One object in writing now is to inform you of the death of C F Austin he died on the 18th ult leaving his wife & family if he had any children in destitute circumstances I learn from Mr Gray

He will be missed much for the determination of Hepaticæ –

Mrs Austin has 12 sets of his Musci appalach and about the same No of the supplement and 10 sets of his Hepaticæ –

Mr Frost of Brattleborough Vermont died a few days ago

Mr A. had been engaged in getting up a synopsis of the American Hepaticæ and had it nearly ready for publication, but could not make up his mind & decide about the arrangement.

Could not ~~the~~ his material for this work be given to some Hepaticologist to work it up. I know there is none in this country but might not C. M. Gottsche be interested enough to do this work.

I have scribbled on the back of this as Austin memorandum & it is of no further use.

Yours truly

Thos. P. James

Cambridge April 9th 1880

My dear Mr Lesquereux

Yours of 3d March came to hand yesterday P.M.

I have looked up all of Austin's Mosses & Hepatic publications —

His first was in Silliman's Journal which embrace a number of Sphagna — one only a new Sp: S. Sullivantii which was lost —

His next was a paper on Hepaticæ in the Proceedings of the Philad. Academy of Natural Sciences 1869 p. 218 —

~~Not next was~~ Then appeared the Musci appalach. embracing 450 Numbers of Mosses & species & varieties

Then followed his set Hepaticæ Boreali americanæ numbering 150 sp & var.

His supplyment to the Musci appalach was issued in 1878 and numbered 100 species & varieties —

From time to times were published in the Bulletin of the Torrey Bot Club of Mosses numbering 54 species and new species

In like manner in the Botanical Gazette of Mosses numbering 51 species & new species

Also in Bulletin at times of Hepaticæ & new species — 69

& in the Botanical Gazette of Hepaticæ 13 new Sp.

I am exceedingly pained at learning of the decease of that eminent and most estimable gentleman Prof Schimper –
He was so gentle and so kind & obliging so affable and intelligent that I doubt if another such a savant will be found to supply a place so ably filled by him
Mrs James and daughter were much distressed at the sad news and offer their sincere condolence to his family – We all received so much attention from him and his accomplished and very social daughter and would be rejoiced to reciprocate their kindness
You remarked in a former letter to me that Mr Schimper was so distressed on the loss of his wife that he had gone to Switzerland to live with his married daughter. Had he another daughter than the two young ladies we met? or was one of these married after our visit?
If you write to the family present our kindest regards to them – Mrs old friend Pl

apl 7 1880

I was about to put this into the mail when early this morning yours of the 6th came covering the notice of Austin – I have taken it to Prof Gray and he in reading it over suggested only a few verbal alterations which I adopt and will mind an omission, that is that Mr Austin had put up a set of Hepaticae Boreali-americanae of which you did not seem to know & probably I will copy the whole for the printer and send it to Mr Lyallo

I now give all at one view –

Hepaticae in Prof. Aud. hat Sec of established species	7		
mw species	40		47
Hepaticae Boreali American in No	130		
of which there are varieties	30		
of wh kind of these species in Prof	15	45	105
Published in Terry Bulletin mw sp		69	69
" " Botat Gazette "		13	13
mw species	40		234
" species	10		
	69		
	13		
	132		

Of Mosses –

			Species
Mosses appalachiana in monday		450	
of which were varieties		118	332
& of which were new sp	10		
Supplement to Mos appal.		100	
of which were variety		8	92
& of the sp here all appeared in the Bull Terry club & Bot Gaz			54
In Terry Bulletin		42	
of mw species	69		51
In Botanical Gazette			
of which were sp no	40		
			529

I am exceedingly pained at learning of the death of that eminent and most estimable gentleman Prof Schimper he was so gentle and so kind and obliging so affable and intelligent that I doubt if such a savant another will be found to take his place
Mrs James & daughter are much distressed at the sad news and we all received so much attention from him and his accomplished and most social young ladies his daughters

Cambridge June 3 1880

My dear Mr Lesquereux

I saw Dr Gray and he promised me that he would see Mr Casino in Boston the printer who is desirous of printing and publishing our synopsis – he is the party that brought out Mr Eaton's Ferns & Goodale's fine Plants which are very creditable works and finely illustrated – As he is anxious to have the synopsis and probably will offer better terms than the New York house who have published all of Dr Gray's Books –

Dr G. went to Boston to see him two days since – I have not seen the Dr. since –

There will have to be an ~~extra~~ additional plate to those of the manual (Sullivant's) which Dr G. says we will have – that we may give those additional genera ~~not on those~~ which come up

Dr Gray suggests that we get up a dozen or so pages of the first part of the synopsis that he may see it and give instructions about the ~~type~~ form style, the ~~form~~ kind of type to be used &c. &c. to the printer and this he would have you to do immediately as he is about to go to Europe soon to remain 9 to 18 mos.

~~I enclose a letter which I~~

Dr Gray has the returned sketches of the Venezuelan Mosses and has bound them with specimens in two beautiful volumes –

I enclose a letter which I had written Mar

8th to Adolph Schrader columbus ohio
this letter was return last week to me from
the dead letter office – You can give it to
Mr Schrader Dr Gray tells me now that
his address is 234 West State Street. Columbus

I have looked out the specimens of the Mosses
which are ~~con~~ embraced in our article in
the Proc Acad A.S. and can furnish Dr Hampe all with
the exception of Fissidens Garberi (I had so very little
of this at the beginning) F. Floridanus I cannot
find another specimen such as the one sketched
and submitted to Prof Schimper expecting to find
more among my plants I gave that specimen to
Prof Schimper if you have I would be glad to see it
Cryphaea pendula I have a very indifferent fragmented specimen – I send packets of two Cryphaeas for you to say
which they are C. pendula such as I may send to
Hampe please inform me & I will supply ~~that~~ or send sp.
almost every specimen of the set ~~is~~ has so few plants
that I am almost ashamed to send ~~them~~ to Dr H. it
is the best I can do and another set even as good
I cannot furnish –

Dr Gray informs me that Sir Joseph D Hooker
has purchased Schimper's herbarium for Kew
Prof. Schimper's son is a very estimable young man
modest retiring & probably not much energy and has not had influence in
the world – he does not speak English – altho'
Dr Gray says we want men of such acquirements
it would be difficult for him to find a suitable position
Agassiz is too very busy to ~~listen~~ to ~~his~~ a proposition
& Prof Goodale has his hands full

Shall I send on all those pamphlets
the first numbers of the "Flora" of Mullin's
and Daby's descriptions – Jaeger's Musci
Austro carpi and his Enumeration Gen & sp
Fissidentacearum? you may not want
them yet – and when we are done with
them I must return them to Mr
Graham

124 — No. 124 — June 3d 1880.

I send some sketches that will come into the early pages of the synopsis — and as I am re-examining some of the Pleurocarpi I will send those at a future occasion —

— "11 Archidium phascoides, Schw. Drum. Hab. Louisiana" is good

Archidium tenerrimum Mitt which I have sketched from Mitten's specimen

— "66 Weisia selegeria WM" Drummond

"22 Gymnostomum pusillum N.S." Drumd.

are sketched from Mitten's specimens

— Cynodontium conradinae Mitt sketched from Mitten's specimen and also found in one of the three sets of D. —

— 303 & 400 Texidens collected by Wright in Texas, which you asked this other sketch

— 342 Bryum sarrum which I think interesting & might be named

I have recently rec'd from Dr Farlow some interesting mosses from Mrs A E Beth San Jose California from which some I have sketched and send

— Bryum — apparently not B argenteum from its areolation

— Hedwigia (probably) It is new I cannot find its likeness it is not H. californica from its aspect and areolation ~~Dr Farlow~~ the areolation is very like that of Hedwigia ciliata T 272 Bry. Eur but the long flexuose pilifferous point & broader leaves and delicate papillosoness — It's a pretty it is not a fruit

— Aulacomnion — San Fernando, California Parish
The reason for sending this scrap is I hope it may be A. papillosum

— 342 Bryum — From the last parcel Rev John Dr Garber Florida
I do not recognize it — Is it B. pendulum Duby Flora no 18 ?? — Is it B. lonchodacion Flore 1875 no 6. p. 93 —

— Bartramia Mohriana C Mull
Hab Donaldsville Louisiana skeleton from Mohr's specimen

Cambridge June 7 1880

My dear Mr Lesquereux

I have just seen Dr. Gray, when he called at Mr Cassino's office last week he failed to see him – Mr Cassino came out to C. and they had an interview and entered into some preliminary arrangement with regard to the bringing out the Synopsis –
It is to be printed here (at Cambridge) We are to furnish drawings for the additional plate and Mr C is to have it engraved –

Mr C. pays all the expenses of the work and gives us 50 copies out of first edition and after that pays copy right terms etc. etc. and settled yet –

Dr. wants the first 60 or 8 pages as soon as you can furnish them that he may have ~~those~~ them printed and set

form of the Book after that it can remain a time until we get a larger number of pages ready say a couple of months or more, and having a good by number ready we can keep the compositor at work and not have him wait for copy Dr would have the same compositor and if a Wilson's printing office the same compositor that works on the Acad. Nat Sci proceedings

I do not know what genera we will have to be drawn but whatever they are they can be made for engraving in schemes 2d Ed of Synopsis

Dr C. is desirous of having it a fine Book large type and a good style

Dr G. suggests that first issue the Synopsis of the Muscid & at a future issue have the Hypoteca He hopes to hear from Mr Wolcott soon

I will send skeletons etc as I get them ready and introduce Mattens skeletons which are all made by ~~them~~ the

Yours truly

Wm P

Cambridge June 10 1880

My dear Mr Sequoia

Dr Gray will sail for Europe in Aug.t so you ~~will~~ may have two or more weeks to prepare some of the pages of the synopsis. We suggest that you do not confine yourself to the pages – the first section of the synopsis as that embraces simply the Sphagna & Andreaeaceae and will not show the variety of form and type – but select some portion of the synopsis which will have a full form of series – order – Tribe – Family – Genera – Species – sections, divisions etc. which will exhibit the style – the form & kind of type to be set up for each division and under the eye of Dr Gray and this will serve as an example to follow throughout the book. The cost of these few pages will be trifling and they may not be used in the composition but to keep as a guide.

Mr Cassino desires to have it a fine book and will have large type.

I will re examine the new Hedwigia and make a sketch of the areolation which is an important point. I have a specimen given me by Wm Pelton collected by C S Parker at Guadaloupe but none collected by Spruce – I mean of H. Humboldtii I actually compared them but will now look closely into them & compare with Brauni & Californica & sketch.

You propose to take the name or names as synonymous only the original name if it is not the one employed now. Should you not take the original name if the

species which had been described under the name in preference to a name given afterwards to that species for instance should you not adopt Catharina for atrichum

I have names of a number of new plants localities to add to the enumeration which I will send

We might omit the names of the discovery of the very common species which are to be found in many localities but where the plant is found in few localities and therefore rare the name or names of the collector should be given

Is your word Sphaerulosum right? Ought it not to be Sparrosulum I note this name is given for varieties of several species and spelled as the latter word is spelled

I have looked down your list of Sphagna which I infer is not in the order to follow in the synopsis but it will be in sections

I do not find S. Carianum or S. Sylvaticum this last to be synonymous with S. Fuscum

I will look into S. Rubellum and be sure that it is Wilson's species

Sp Gaudrei N.S. is not in your list

I am not now familiar with the Sphagna

I kept no copies of my letters to you at the beginning of our investigations I have only a paper under which I cut up Sphagnum species to identify the which I enclose to you I don't know what it may be of service

Cambridge June 14th 1880

My dear
Mr Lesquereux

Your postal C of the 10th came on Saturday enquiring about No. 19 of Austin etc. I set about in search of the distinctions of that ~~class~~ division of Sphagna – and

I call your attention especially to the lots that I have just made of stem leaves of Sphs

– No 1. Sp. fimbriatum "Serum so marked by Sullivant on the packet from Palisades Closter N.J. Austin Nov 4 68 from which I took the spn the peculiarity of this stem leaf the slender narrow rete the striking form of the fimbriation and large central mesocheny – which none of the others possess I had very many leaves under the glass all of this character – the cross section of the stem has three rows of cells and the central cells lighter more open than any of the other specimens

I compared it with my British plant and it is identical with that – I have the same from a number of locs –

No 19 Mus: appalach is the same I add a specimen

– No 2. is No 20 Sp: Gergensohnii the slender form vide this stem leaf how distinct from the fimbriatum the ~~rete are~~ border of the rete are slender and the margin apparently ~~margin it~~ the apex does not spread out ~~the cross section of the stem~~

– No 3. S. Gergensohnii E Sullivant Lesq. Coms I sketched to show the form etc – the cross section of the stem had occasionally 4 rows of outer cells the central not so large and ~~less~~ more compact somewhat obscure

– No 4 S. Gergensohnii – white Mrs Austin "large variety" = fimbriatum var. major – the same as No 20 Mus: Appalach – you will note wide margin & almost closed apex etc etc –

– No 5 Sp. Gergensohnii Pinkham Notch N.H. Cg appears to be the S. strictum Lindbg. which I have from several other localities

Continued June 14 1880

In the Sullv: herbarium I found a packet marked —
— "Sphagnum Girgensohnii Russow
Peat Bogs Junibriatum var major
Clarks N.J. Strictum Lindb —
C F Austin Aug 1866.-7-8 — " —
— Another packet marked
"Sphagnum Girgensohnii Russ.
= — Strictum Lindb —
= — Junibriatum Major"
— another packet
"Sphagnum Squarrulosum Lesq is
= — Girgensohnii a new variety"
Neither of these three plants have I examined as

I noticed in Sullv herb: a packet named as follows
"Sphagnum Lindbergii — Slopes of the White mountains N.H. Austin" —
Also another S. Lindbergii sent from the sloping wet rocks near the top of Mount White face Peck 1868."
Mr Peck sent me a specimen of the same from which I send a plant
You will thus see that Mr Sullivant has seen specimens of S. Lindbergii — It is named by Schimper & you will find it at page 832 of his last Ed. of Synopsis —

I hope you have received my letter of the 10th also my postal card of the 12th. You will thus learn that you will have two more weeks to arrange half a dozen or more pages to be set up under Dr Gray's eye

Yours truly,

— Sphagnum rubellum Wils — Mid Brunswick Nov
seems to correspond with description W Fowler 1869
of the A. Sheen — & Sullivant remarks on the packet
and on another packet of the examined this W.S. Dec 26/69
same, says it (This looks right! J.W.S.) —
Austin in Muz appl: Has it Sp. acutifolium var
rubellum — — Schp at N.Y. 7 has a remark —
— The pedicels of Odigonia when dry are not generally recurved
but on being put into water they take the curvedness

Cambridge July 1. 1880

Mr L Lesquereux

My dear Sir

I send sketches just made of

— S. Magnum Gaudri — rather hurried but hope will answer your purpose —

— Sp. Mendocinum of this I had but one plant and that not in fruit I did the best I could under the circumstances

— Sp fimbriatum Wils from a specimen taken from Musci Appalachian — If you do not consider the true species — it might be left out and considered S. Geigensohnii

— Sp subsecundum — from the only specimen I have in fruit — it was the last done this morning too hastily I intended to have sketched several forms I have a number packets of it —

X I loan you a slip from Sullivant's Hub — ~~made~~ written Feb 1868 —

I have sketches full ones of the new species of Leptodon & Hedwigia which however it is not that sp. I have sent for more and as we proceed will send the sketches etc etc.

I have very many sketches of Musci which I will submit as we proceed onward

Cambridge Mass June 25 1880

My dear Mr. Lesquereux

I took your Ms. of the Sphagna to Dr Gray this morning - and he asked me a number of questions about your arrangement of your orders sub orders &c and said the divisions & sub divisions must have explanations of each term -- say the Sclerocarpae must have its character given under the term - I told I thought you probably would have the explanation of the terms in a previous analysis - He says terms must be explained - He wrote off the two pages herewith sent to show a plan of how the synopsis is to which I refer you - If you write to the Dr - himself if you wish to know his views and give him yours - I sat down to day and have hurriedly copied your seven pages of the Sphagna - and send it also you will read it over and supply words that I could not decypher or make any changes - and if it goes to the printer I will put it into Dr Gray's hands to have it printed under his eye - Dr G. says it would be as well to furnish the Characeae to be printed and the type &c kept for the synopsis -

I will sketch the spi ~~Gra~~ fimbriata from Austin's plant in his Muse Appalach and and send it and S. Saxbri — I cannot find in all of Sullivi. Habarcum ~~a~~ Sphag. papillosum by Austin — I never had a spr from him of it nor have I seen one ~~at~~ and I cannot find it anywhere published by Austin — I find Sphag. cymbifolium var. papillosum — Sph. papillosum Lindby in Schimp Synop 2d ed p. 848 I doubt much whether it has been found in this country if you have a specimen I will sketch it if you send it to me

The Mnecin you collected and sent is Mnium affine v. elatum — rugicum has much less serratures to the leaves —

I trust your sojourn at the South & Rio Pedal will recruit & reinstate you

to Mr Ingraham I still retain them and you will need them unless you have made full tracings for your use from them? —

I am making additional sketches of the Sphagna some of which you have not seen — I am more careful with the details — I have not copied the balance of the Sphagnaceæ as it will have to be amended you have not given Sp Garbini etc about the Sphagna we need not hurry as I understood Dr Gray it will ~~follow~~ at the end of the Synopsis — and the Andreaceæ at the beginning — ~~Wait~~

By the way is Synopsis the better title for our book? would it not be better to call it a Manual — Dr Gray is indifferent about the title but will it not be more than a Synopsis —

Any thing you require or want me to do as we progress please signify it and I will cheerfully work at any thing asked for.

I will resketch those parts of the sketches of the Sphagnas as are not full and not right or strong enough to determine their position mention such as you would have me resketched

I met Dr Hagan this morn in the car and he told that Count Portalis was very ill indeed at his daughters at Beverly of an incurable complaint and that he Dr H. was about to go to B. to see him

To what point shall I direct my next letter (what Post office?).

Very truly your old friend

Thos P. James

Cambridge July 6th 1880

My dear Mr Lesquereux

I have yours of 30th ult. — I hope you have mine of the 1st inst. I now send you by

— Sphagnum Mendocinum and Sketch which dropped out from the last consignment

— A sketch of a Sphagnum . . . . near Enterprise Florida Mr Foster leg

I do not recognise it —

The stem leaves from near the upper branches are unusually large fibrillose and slightly porous — many branches closely intricate to the point — very like male catkins but no antheridia found. this branch as sketched is reduced to the size of the other parts — 3 to 4 branches to a fascicle —

— Sph. subsecundum sketched large form from a specimen of Austin 4 branches to a fascicle — stem leaf about half fibrillose — from

— Sph. Secundum smaller form sketched from the memorial — Stem leaves not fibrillose — branch leaves fibrillose throughout

— Sphagni cuspidatum var. serratum sketched from a specimen in Musc: appalachian No 45 which I found in a fruiting condition (which I think Austin did not so detect) we named it in the set Sph: serratum — but in Bull: Torr. V. VIII p 15 as above — whether it is S. cuspidatum you will determine — your capsule is not in the upper portion but below on the stem and sessile embraced by the upper perichetial leaf (see specimen sent) you will observe the perichetials 7 large & 6 smaller ones — the branch leaves are peculiarly serrated the dots seen appear to be small cells of chlorophyll

— Sphagn: macrophyllum var Floridanum Austin sketched from a specimen sent to me by Austin as Sphag serratum & which I took with me to Prof Schimper who pronounced it a floating Sp macrophyllum and that the description by Austin was very indifferent — Austin has revised these

two species and published his corrections in the Bull. Torr. Clb. xvij p 152 If you consider these two species as not belonging to Sp macrophyllum & Sp cuspidatum I do not see which you may not give them an appropriate specific name & refer to Austin's as synon: –

— Sphagn: cymbifolium sketch of leaf from Mass appal: – also

— Sphagn. mollescum sketch of leaf from the same

— Sphagn Pylaisii sketch of leaves from the same

— Sphagn cyclophyllum of leaf from the same

I have just discovered in my copy of the Sup: to Musc appalachicus a packet of Sphag. papillosum which I will make a sketch and detain this from the mail that I may send it to you

— Sphagn papillosum Sendtn – N. Brunswick canada Fowler & Jenny Austin

I believe I have some sphg which may prove distinct and which I will now look through and sketch if I cannot determine them & will submit to you

If you have any plant that you wish me to sketch please send it & I will with pleasure sketch it or them

I hope you will recruit in the mountains or woods and you & your good lady may enjoy your sojourn I expect on your return home you will be yourself again & will be able to work at the synopsis with zeal –

I think that before we begin the synopsis that we should have the whole of it in readiness and not keep the printer waiting for copy – if during the printing any thing new should occur or come out is in

Your old friend truly Tho. P Sonne

Cambridge July 17. 1880

My dear Mr Lesquereux

Dr Gray made me a hurried call yesterday and left your letter of 13th to him to reply to. To query

1. Shall I not rather imitate Watson's Key or have a short introduction on Mosses – their habitat, mode of life their place & use in the economy of nature, also mode of study of research and of preparation of the specimens? and follow it by the classification this in roman No. of pages and after this begin the description by the Bryineae with Common No. of pages – ? His reply to this Yes!

(To this I would suggest that you do not imitate to closely Watson's key for reasons you allude to)

2. Do you like or not mentioning the time of the appearing fruit this placed after the habitat to this he says Yes!

3 Shall I make a new or write again a few pages of the Phascaceae following your plan & send them for printing: he says. No!

The original Ms. of these Phascaceae I gave to Dr Gray and which I understood him he had ~~[illegible]~~ carefully arranged to ~~the copy~~ for the printer whom he has seen (Wilson of Cambridge)

I hope to have ~~[illegible]~~ several proofs of this

Have you a copy of Rau & Henry's catalogue of Nor. Am. Musci (I would say more properly Austin's Catalogue) Understanding it was out I remitted the cost and have a copy – if you do not have it – ~~you could~~ I will send you mine – I observe they (he Austin) adopt Nanomitrium so we ~~need not~~ may do it.

Shall I send you those Pamphlets Fl. Bryol. Am. belong

with regard to the Musci Venezuelanses I have carefully looked into my packet and find in many very indifferent specimens — many barren, and many of small amount & suppose I have one of the best that Mr. Schrader could furnish and am content but purchasing of mosses who likely would not appreciate and would expect fine plants rarities would not think themselves properly served with a set which was in ~~an~~ member of instances so indifferent. If you do recommend the set to the public you ought to qualify your remarks by stating that the specimens in many of the species must be limited in quantity and in others barren as Mr. Funder did not collect nor could not in all cases collect finer plants.

A set of these Mus: Venezuel would be especially valuable to any party who may have occasion to examine and name Mosses from that section. the highest number I observe by the pamphlet (C. Mus) accompanying the set is 154 — I have counted 75 numbers of new species represented in the pamphlet.

Mr Schrader should loan you the pamphlet a set, if you determine to call attention of the public to the Mosses —

Yours your old friend truly

Thos P Jarvis

Cambridge Aug 3 1880

My dear Mr Sullivant

Dr Gray sent me your letter of the 31 July to him —

Mr Watson is out West on a census tour with Sargent will be back in October — I think he may be persuaded to join in the Manual using his name in connection — but with your name all the time your name must not be omitted — At any rate we (Dr Gray & self) feel assured that we can depend on Mr Watson in the publication — We cannot do without him.

Dr Gray says that Watson's name would not be proper to be given or attached to any of the new species — Dr G. suggests the new species ought to be published by us in some journal and we quote therefrom in the manual. I find in referring to the copy of my letter ~~that~~ I ~~sent~~ under date Feb 7 1880 No 123 — that I sent you Mr Ingraham's pamphlet by Mr Lindberg on the Nanomitrium — Ephemera etc and at the same time that I returned the first pages ~~to~~ of your manuscript or list pages 20 which I had copied — and a letter No 123 ~~on~~ I have no doubt you will find the pamphlet ~~along~~ with the returned list Feb 7 80 However with regard to Nanomitrium Dr Gray decides that it is not to be adopted but Micromitrium ~~for~~ this name has not priority as a genus it was only given by Mitten to a ~~subgenus~~ section to the genus Macromitrium — and I believe Mr. Sullivant had the same views — the name suggested by Mr Austin Symphyona was never published until recently by Raw Symphyme — and no notice or mention need be made — This Lindberg pamphlet ~~has~~ ~~now~~ has a number of Phascaceae to be

Cambridge Sept 18 1880

My dear Mr Lesquereux

I am pleased that you have finished the Coal flora and are at liberty to work at the Moss flora -

Nothing of the manual is yet printed nor will it be until the whole or nearly so of the manual is written the printer objects to begin a book that is not to be written as the work of printing is in progress - as the workmen are in all cases delayed and checked in their work and so called off from it to go at other work. it is much better to have the copy so that the same compositor may be kept at the book until finished

It would therefore be decidedly better to leave your analytical table until the manual is made up and so you can make it amend it fully and yet have it at the beginning of the book -

None of the printing of the book is done so you can amend add and finish the Sphagna - I have copied the Sphagna several times amended it under Dr Gray's instructions and will have to copy it again for the printer as Dr G. says - I will finish copying the Sphagna in a few days and send it to you to add etc etc as there is no necessity for haste you can all new Sphagna to it before giving it to the printer - x

Dr Gray is undoubtedly in Europe now.

x I have not written any thing since the Aug adv of course having been in constant attendance at its meetings and have been to the White Mts returning last week in better condition for work

Cambridge Oct. 1880

My dear Mr Lesquereux

I send the Spagnaceae – the first pages as written out by Dr Gray as an example for us to follow – For the printer I will copy on paper with blank margin to make corrections – coarse ruled is better so that interlining may be done – put only on sheets on a piece of paper when in cancelling and substitution you have left to do over. Dont crowd together the most paper & check

Under 2 cuspidata – is var pigmentata the same as var Drummond – who gave the name var Bigelovii?

Have you Sph. hypnoides of American mss

Molia you have ducts of narrowly rhomboid form blunt towards the back of the leaves enclosed by a border – but in Sph. Eudon you have not stated the ducts – but Schimper represents ducts – as medial with upper and lower borders free – Sp Mellerii and S Mollis you have ducts narrowly triangular emerging at the lower concave surface of the leaves, I call your attention to these discrepancies that we have all right – please make the amendments

Through the manual we have given the male plants last or after the description of the female – I find most the male descriptions and so – Shall the male descript. be given thus = after the female –

S. Mendocinum the descriptions were repeated at page 5 & 10 – I have drawn up the description which please look over and see if it is as you wish –

October 7. 1880

My dear Mr Lesq

Yours of the 5th is received

The pamphlets – 3 Laubmoos C Müll
– 2d North Polar expedition
– The Musci Pondosi Ecuador Hupe
– Musci Ceylonicus Mitten
– And a pamphlet p. 609 to 624
are all your property –

The two pamphlets by A Jaeger
the 4 or more numbers of the Flora
are Mr Ingrahams – we keep them
until we are done with them –

I send on loan my copy of Wilson's
Bryologia Britannica which retain
until you are done with it – whenever
I need this book I can consult Sullivant's
copy at the Herbarium

I have Mitten's pamphlets which
he gave me at his own house – but I
have not his Cryptogamic Flora of the
Atlantic Islands –

I believe that the Bryology of the survey
of the 49th Parallel embraces all that he has
Jour. Proc. Linn. Soc. Vol VIII – published
on American plants – I have made
sketches of them which Mr Mitten loaned to
Mr Sullivant which I will submit as we pro-
ceed with the work

The great Bot. 4ft square of Musci Exsicc. I
do not want just now I have lots of duplicates

from all parts of the country to go through a large collection of unnamed mosses, I would rather be excused about it there are any California etc. which you have examined and are uncertain of about I would like to have and make sketches of as you cannot investigate now on account of ~~your~~ the intended use of the microscope

I have now ~~a few~~ some 8 or more Mosses from Mr A. E. Burk San Jose Calif among them the new species of Leptodon – and Hedwigia Mr Austin has not returned yet about making a list in two columns on one the admitted species – on the other synonymes and not admitted I am in doubt if I can make such but I will try –

Respectfully Your old friend
Th. P. Sonn

N. S.
12 O'clk there has this moment come in by mail a package of 88 specimens of Mosses from Pictou Nova Scotia from Mr A. H. McKay In the previous parcel of 67 I did not find any novelties

I send by this mail my copy of Wilson's Bryologia Britannica, which I loan to you if ~~I need~~ which you can keep until we are done if I need the book I can consult Sullivant's copy at the Botanic Garden

Cambridge Oct. 30 1880

My dear Mr Lesquereux

I have gone over my stock of Andraea to day and do not find any additional species to the three – A. petrophila rupestris – and crassinervia – I find a packet from Plover Bay Eastern Siberia N.A. Doll leg which I submitted specimens of to you long time ago – and which I now have sketched outlining the leaves only and which I make to be –

No 1 Andraea petrophila –
No 2 — — — var squarrulosa
3 — — — sylvicola
4 — — — — or some other

I send specimens also – The size etc does differ from any other of the Spec North American species – I submit to your opinion

Your old friend
Geo. F. Parker

Cambridge Novem 4th 1880

My dear Mr Lesquereux

In reply to yours of Oct 29 '80 I send you the sketch of Acaulon (Mic robryum) Floerkeanum — you have had it as you may see by your remark thereon "Right if the leaves are concave" I have added a section of leaves showing that they are concave — I send it for your satisfaction altho you deem it unnecessary by your postal of the 17 Nov. but as it embraces all I have and as I had placed it in a pocket among my mounted specimens I wish it returned —

— The Acaulon N sp Aiken — I refer you to my remarks on this & the A. Wolfii in my letter of Octob 1 '80 — where I state that I detected the A. (aiken) to be male flowers of Pogonatum brevicaule —

Since yours came to hand I have been working up the Microbrya — and send sketches etc

— "8 Drum = which was reported as Phas. muticum — by the sketch you will see that it is the Acaulon triquetrum fid Sullivant in N. and the only specimen found as far as I know

~~Acaulon rufescens Jager — New Bedford Mass~~ Ingraham leg.

— 31. ~~Sullv~~ Acaulon triquetrum var. from Sullivant Leg Miss Exsict — var. "ped. brevior subcurvato" see sketch — Is not this the plant described by Jager in his pamphlet which you have and above noted as Acaulon rufescens Jager — Turn to this description and compare

— A. rufescens Jaeger? New Bedford Mass Ingraham leg see sketch and make a comparison — also —

— No 2. Acaulon — Athens Ill. Jno Wolfle Oct 1870

See sketch No 2 on the same slip as the preceding with specimens on the back of slip. The last three plants seem to me to be the same species and if not A. rufescens they represent a new species — which I submit for your judgement and decision — identical with the California specimen

I have Acaulon muticum from the following localities —

A muticum — South Carolina from Dr. M A Curtis & W H Ravenel

" " Illinois Hall & Henry M Wolf

" " Indiana Co Penn. James Lea

" " Chester Co. Pa " " "

Cambridge Nov 16th 1880

My dear Mr Lesquereux

I have closely examined my stock of Bruchia (I have from many localities) have look into the B. flexuosa from Mus. & see Sk – have sketched a goodly number which sketches I enclose & with remarks on them – I could not find synoicous specimens (only some two plants seemingly synoicous) One B. Hallii had a distinct male plant B. or so – You will find on one slip five sketches from specimens from Sullivants herbarium (one from Texas four from Ohio) – B. Hallii – B. Texana – B. Sullivantii dust from a spn from him – B. Carolinea – B. Donnellii B. brevicollis – B. Beyrichiana from the original spn in Sullv. herbarium I selected the best specimen all so more very young to cut up – B. Beyrichiana from Burlington N.J. B Beyrichii from southern Ills. Dr Geo Vasey – and a specimen in a packet Nov. Bruchii flexuosa wet meadows June 8/65 Clarke N.J. CF. among which I could not detect inflorescence

I send Schimper's original mss –

I have copied the page of Schwaegrichen from Hedw Sp Mus. in full –

I have your Post Card of 11th and shall tomorrow ~~took~~ go to the B Hill and look out where Hampe has described Weisia Rizleana – At the same time sketch anew – and ~~see~~ to the Guadalupe Spn & Weisia figure –

Your letter of 12th I will ~~sketch~~ & sketch W Schisti and examine closely the ~~specimen~~ Mnotty sent

I return your letter about Bruchiae

Your letter of the 10th — I will consider —
The Astonum N.S. of Cantor Wolf I found
out to be A Ludovicianum
Your A. pygmaeum I may find in Sul
livant's Icones if so will sketch it
Your postal card — I will search at the
Bot G. Library for place where W. Rugeanum
is published
I will see to the Guadalupe specimen and
W. Gusax —
Your letter of the 12th came yesterday
I will examine carefully the Mosses
enclosed & sketch W. Schestii —
I called on Mr Cassius Washington St Bot
yesterday and got one of the circulars which
I enclose — I took strong exceptions to it — to
his sending out such without consulting
us — that we forbid Dr Gray to announce
the manual — that the circular was wrong —
— in putting the Phanes before Lesquerux — that
the work will be revised by Dr Gray & other
eminent botanists — as Dr G was in Europe
& had been absent a long time I asked him who
could revise our work — I requested him
not to circulate more circulars
While there Dr T Sterry Hunt dropped in
and he informed me of a very delightful in
terview which he enjoyed so much at your
home
I have just received intelligence of a matter
which requires my prompt attention and
shall leave home for a few days and am
therefore compelled to postpone bryology for
a while Your old friend hurriedly
J. G. Lemmon

Cambridge Nov 27 1880

Dear Sir

I have but recently returned ~~I will~~ reply to your letter of the 24th I have thought it best to send your Linn Soc. Vol XII written by Mitten – It is in a dilapidated condition I ought to have sent it to the binders

You will find Campylopus gracilicaulis – and will want to look into the Calymperes & Bissometrium If I need to consult this volume I can get the copy at Dr Gray's library so if you wish me to see any species in it you can mention it

– Campylopus flexuosus L. (Brid. Ran's mistake) ~~but Hale~~ is from Grandfather's Mountain No Car. Sullivant –

With regard to Ran's C. introflexus etc you will find that he got his information from Mitten Linn Soc. XII p 84 – where are synon – polytrichoides, leucotrichus & luteseens –

I send also – Torr. Bul. VI p 341. for Campylopus Decrauium etc. also

Botanical Gazette V. p 150 for Dicranum Campylopus etc –

These Numbers you can return when our work is done

Since my return I have been studying Dicranella Schreberi which I will finish to day and send on Monday –

I send in this my sketch of Lophocolea longiseta from No 100 Drummond — which is as far as I know the only location for this species — if you have found your specimen and wish it sketched please send it

I will take up those two mosses which you sent me just on the eve of my leaving home —

Yours very truly
Geo. P. Davis

Nov 29 11 O'ck — I have made hurried sketches but I think they embrace the needful developments of —

— No 8 Arkansas — I think you cannot fail to recognize it

— No 3. Ark — is Ph. specimen? or only P. accumbens

I consider it P. accumbens

I return the plants

I will now look into the Dicranodontium & look up back material

Cambridge Nov 29 1888

My dear Mr Lesquereux

I have now examined all my specimens of Dicranella Schreberi and believe we have no D. brevifolia now

Sketches of the following I send

→ D. Schreberi Adirondack Mts NY Lesquereux capsule too immature to get a fair stone — No male organs found

— D. Schreberi North Adams Mass of larger form than the above the capsule is a fine yellow and the operculum a chestnut brown peristome a fine red — No male organs found none on the fruiting stem

— (62) D. Schreberi — Portland Oregon Merriam a fine plant but no operculum capsule brown — good male plants

— D. Schreberi on clay ground Owen Sound Ontario — Macoun July 1878

→ I ~~have~~ — Capsule immature the capsule dark — the green operculum yellow — No male organs —

— I have examined specimens borrowed from Lancaster Co. Penna Jermy — by Saskatchewan Macoun 1872 Austin reports — plants from Hoboken New Jersey Lake Falls New York

I will finish examining the 2 plants sent for investigation No 8 Arkansas + No 3 Phycomitrium Henry and report

I have yours mailed 26 — Dicranodontium which I will work out

— (956) Rhabdowisea serrulata? in fruit —
Hab. Rocky wet hills Nulato Alaska Nov
In comparing this sketch with the foregoing spn
I believe it to be identical — and that I have made
a mistake in naming it R. serrulata —

— Dicranodontium aristatum Sch. I have
sketched this that I might compare with others —
I return your packet — as I have a better spn from yourself

— Dicranodontium nitidum James No 1146 —
see sketch —

— Dicranodontium nitidum James No 1145?
see sketch —

— "Campylopus — ? — Rocky Mts Hall"
see sketch — I return the specimen

— #1. Campylopus ? — Pocono forks Monroe Co Pa
Nov 1868 J.P.L.

— #2 Campylopus ? " " " " " "

I have sketched these two plants which may be
some known species — and now in a new locality.

— Weisia viridula — Illinois Hall — also I
have ~~the same in another packet~~ only few plants
from Illinois Hall —

I have sent you a sketch of Campylopus gracilicaulis Mitt — you will find a description in your
Limbocky Mitten — I had compared it with a
specimen from Spruce Andrews Mosses if you
would have me make a sketch of this plant I will
do it —

I have a recollection of having Austin's two species
Campylopus etc but I have misland them or sent
them to you — if you have them and you wish
them sketched I will do it if sent

I will re-examine carefully the Bruchiae sent
a few days ago and report

Very truly your old friend
Jno P Sullivan

Cambridge Nov 10. 1880

My dear Mr Lesquereux

I have your of the 6th about the
Fissidens Garbae — I have none whatever of that
plant in hand — I have however searched
diligently for even a scrap unsuccessfully I
had but little of it in the first place which was
divided and returned to you of which I hope you
retained a portion from Dr Garbe's portion and will
send to me I will fully investigate — There was a
a small scrap on the sketch which if I get I may
be able to determine the question

I enclose your remarks on Fissidens Floridanus
— I mail a copy of your article in the Proc. Am Acad
which I go altered by scratching out and insertingy
in all of the few that I have given out since
the discovery of your error

I wrote to you on the 7th sending Weisiae etc. etc.
after sending the W. crispula — I turned to our list
to see if I had given localities and I found I had
a number under W. crispula so I got them out
and have sketched them these sketches I enclose
now for your determination — I had not looked
much in Brid. Eur. under that genus — and since
my letter was written I for the first time noted
Weisia compacta — and now think some of my
Weisias are very near that species. Bond viz —

— (28) Weisia — ? Portland Oregon Newberry
— 113 Weisia — ? on dead pines Utah Walton
— 136 Weisia — ? Bear river canon Utah Walton
— 137 Weisia — ? " " " "
— 50 Weisia — ? Alaska —
— 60 Weisia? — ? Old wood Oregon Newberry
this last seems not to be a Weisia the peristomal
teeth are some what bifid and cribrose on very
slender — what is it?

Cambridge ~~Sept 18~~ Dec. 7 1880

My dear Mr Lesquereux —

I send sketches &c &c of the following — viz

— Weisia Rugeiana Sch. amended in the peristome & areolation —

I went to the Bot. Garden Library yesterday and looked into many of the volumes of the "Flora" but could not find any mention of this species — I have usually found Mr Watson expert at ~~finding~~ looking out species but he has not returned home yet when he comes back I will have him to search for — I got the original packet from the Herb. and copy the label viz —

"Weisia Rugeiana Schimp
Florida leg Rugel
Mr Schimp
in Hampe's writing — It was sent with others by Hx to Sullivant —

— Weisia viridula Guadalupe Isl. Dr Palmer

I find it is monoicious the male flower terminal on branches attached to the fruiting plant — I had heretofore found 2 plants separate so that it proves to be one of the gymnostomoid varieties of W. viridula —

— Rhabdoweisia fugax? Easton Pa Porter —

See sketch and determine — It may be Rhabdoweisia

— Weisia crispula? ~~Oregon~~ Rocky Mtns Flora Lat. 60 Athens Illinois 1862 Hall

From the sketch it seems more like W. cirrhata but I could not find the reflexed leaves in the middle

— Weisia crispula Oregon boundary commission

Weisia crispula Hdw. coll. by Dr Lyall 1861

I got this plant from Sullivant herb. it was labelled by Mitten. I have sketched it and it appears right. I have two specimens from Oregon territory but the above being a strong specimen, I have sketched it

— Rhabdoweisia (Cynodontium) Schiste B&S.

"68 Drummond Nor. Am Musc No 1.
Hab — "Abundant below Norway house — about Lake Superior and in the Rocky mountains"
See sketch it appears to be right.

I might if you think best obtain of Mr Rae some of Austin's plants which I have not had of Austin and which I might sketch I have not had any communication with Mr Rae since my reply to him about his publishing his catalogue of Mosses he may refuse me but I can ask him for them if you say so,

Cambridge Dec. 12 1880

My dear Mr Lesquereux

I have had the Bruchias under sketching work for a few days & now report —

— (15) Bruchia vosgesica var. 2 Drummond The B. vosgesica is the name reported in the Drum. sets It has been named B. glareosa — On the slip of B microcarpa Nils? I have sketched a leaf which see The antheridia are axillary near the perichoetial leaf It is not B. microcarpa as the leaves are absolutely denticulate at the very apex only etc.

I have

— 15. I have made two other sketches from 15 Drum. var. 2. (which I send) from Sullivant's set in seperate clusters not B. microcarpa — ~~the other from my set~~

I found another Bruchia by Wilson on memorandum B. setifolia Wilson which I have copied — when I go up to the Bot. Gard. Library I will find in what periodical they were published they are not "toto fere marginis crossdentatis" — The set which Mr. Wilson examined must have had quite different plants under (15) Drum. —

— 15. Bruchia curviseta n.s. vide new sketch you remark that you see no difference between B brevicollis & B curviseta — you ought to see B curviseta has denticulations at & near the apex of the leaves — a strong nerve — a wider capsule & very thin capsular walls and a curved pedicel etc — name curviseta is provisional any other appropriate name you suggest may be adopted if it prove new — whereas —

B. brevicollis has entire narrow subulate leaves — slender nerve a larger calyptra etc etc —

— Bruchia brevicollis Lsq. I have made another sketch of this which I submit — every leaf of the original specimen is drawn

— Bruchia Texana Aust — vide a new sketch from a good specimen the leaf is almost entire etc I have drawn every leaf of the specimen selected

"97 Dicranum Schreberi Hedw
Hab. Banks in alpine situations"
Drummond Nov am.

I have just made a hurried sketch of this species
I believe you will agree with me that it is D.
Schreberi & not D. brevifolium notwithstanding
that Schimper Wilson & C Muller to the contrary
You must see that the leaves have margins
dulate at & near the apex – capsule with little
or no neck – inflorescence is dioicous &c &c.
We have no D. brevifolium in this country
at least I have seen none

Your old friend truly

Cambridge Dec 20 1880

My dear Mr Lesquereux

I have re-examined the described Fissidens and sketched some of them which I send

— Fissidens limbatus Sull see hurried sketch – shewing the inflorescence to be monoicous the male gemma axillary – buds not bidicellate

— Fissidens hyalinus – The sketch is from the only specimen I have or have had – I cut it to pieces but could not detect antheridia – If you have ~~to spare~~ any to spare I will try to find male organs – I do not know whether Mr Beardslee is living – if he is it would be well to write for more – my specimen came from you I did not know Mr. B. you would learn from him the time of fruiting.

— 100 Fissidens Texanus Lesq. the sketch shows a male gemma at the base of an old stem a loose gemma I found – could not find a stem with antheridia – you will notice that the leaves have a slender marginal border commencing near the apex – the apex obsoletely denticulate – the nerve extends to the apex –

I call your attention to the sketches 115 F. Texanus Lesq. No 100 sent Mar 1876 and it may have other characters ~~I know have~~
Also – to a sketch 116 F. Algariceus De Sol. sent at the same time – I do not recollect which of the Wright + Texas Fissidens this plant is named for

— 88 – Fissidens Synoicus Sullv. Sketch exhibits the synoicous character at 3 leaf – the leaves have a slender margin except near the slight denticulate apex – I cut up several but did not find other male organs. I refer you to page 103 Gray's Manual – Sullv. Mosses which explains your query "p. 103 what is this reference?" for his full description – you make it F. inconstans Sch.

— 303 – Fissidens – San Marcos Texas Wr. I have made a full sketch of this – see the paper accompanying the sketch in explanation of the parts drawn –
I believe I have sketched this 303 also 400 and you have the sketches –

— 400 Fissidens – San Marcos Texas Wright
I submit this sketch and have made my remarks on a paper enwrapping it. Your perfect of description you can return

Could you not get from Dr Garber the loan of his Fissidens Garberi and F. Floridanus you can tell him our few plants are used up and we want to confirm certain points

Barbula then that is not B. Balanderi –

Cambridge Dec. 24 1880

My dear Mr Lesquereux

I have two plants of Ceratodon from Prof Macoun – on neither of which had the Prof marked – Ceratodon minus Aust yet I infer one – the smallest to be the one (Austin had not furnished me with a specimen) I some time ago sketched the two Ceratodontes & submitted the slip to you.

I have now resketched No 95 the smallest on the back of the two = 95 – 96 – 96 is C. purpureus –

— 95. Ceratodon minus Aust? — drawn under 1/8 power of Cam^r. – You will note the capsule is not large – the size you learn from the specim^n in the packet — the leaves terminate with an awn – the capsule is a dark brown color. the peristomal teeth slender articulations few and above the middle – few cross bars vid. 3 sketches under 3 distinct powers. On the right-hand of the slip are drawn the leaves of a plant under the usual high power – the 3 perichaetial leaves then the next leaf to them – 1 – 2 – 3 – 4 – 5 – 6 – 7. in the order of position – the areolation I have enlarged some at No. 3. to show their form more distinct

— 338 Trichostomum sp.n. I have amended the sketch by adding an annulus at the upper margin – it is in two (or probably) rows of cells – which falls off but is no revolvable – I could not get a matured capsule to see a good peristome. I cut up many nearly all operculate capsules – (All I have of this species are in the paper attached to the slip) If you have and mature capsules I would be pleased to have ~~and~~ so that I might get out a good peristome – I believe the peristome

at your 15 represents a proper one — a smooth loin cloth — the leaves I have numbered, beginning with one of the lowest on the stem — 1 - 3 - 4 - 2 - 5 - 8 - 9 - above - 6 - 7 - the duplicate 7. I have not found repeated — the upper 10 is a perichatial leaf — 11 - 12. 13 are perichatial leaves — The species is dioicious — simple or branched — male plants much smaller than the fruiting plants, vid left-hand corner where are plants of natural size — I have drawn leaves of one plant on the other side of the slip, commencing with the lowest (not the lowest) numbering — 1. 2. 3. 4. 5. 6 — & perich 7. 8. 9. you will observe many of the leaves have a wavy margin — recurved in the upper portion — all entire — no denticulation — an extremely small papillousness on the back — difficult to be seen —
The male plant is seen on the back of the slip the old or former sketch — some leaves — perigonial anotheridia — no paraphyses —

Trichostomum tophaceum has broader and more blunt obtuse leaves — no annulus etc

— Weisia barbula — you will find in Mitten Jour. Lin. Soc p. 136 — C. Muller Syn. 1. p. 558 — = Potia Barbula C. M. and I have a recollection that Mr Sullivant has somewhere described it I think in Wright & Cuba set —
when I got it Farber's collecting I reported it as W. Barbula and you pronounced it right!
I return sketch with 3 plants attached —

— Trichodon (Trichostomum) nodulosum — etc. I have from Prof. Allen which he submitted to Mr Austin who pronounced them true nodulosum Austin submitted them to Sullivant under his names — and I think S. pronounced them var. of T. tortile — so they may be so considered

— 19. Desmatodon arenarius — same as 105 Farber

the 105 sketch or specimen you omitted, and I find 19. not to be D. arenarius — vide sketch made from plants 19 which I have
Sketch 1/3 power shows a full form of a plant & one of the male specimen — equal in size the antheridia numerous with paraphyses —
On the other side of slip leaves etc under the usual high power of cam. —
The leaves are narrower more recurved the upper portion decidedly incurved not recurved and mostly incurved below the areolation is very much closer (smaller) about one third the size by comparison with a specimen from S. L. Mus. exsic. so close in the upper portion as to be somewhat opake — this areolation is seen somewhat enlarged at the third leaf — the capsule oval-oblong (not elongate-cylindrical) erect — ribbed when dry operculum long erect or slightly enclined the peristome teeth slender, single imperfect. annulus one tier of cells perceptible — The papillousness of the leaf is very feeble indeed the nerve extends to the apex or terminates with an apparent mucro. — What is it?

I do not know what 105 Farber is, you say you have a large lift of it please spare me some — and the old sketches of mine —

Please also send me Fissidens Farberi
About Fissidens Floridanus I do not recollect its being found mixed with other plants
Can it not be had of Dr Farber? —

In yours of 16th you mention that you would have me see that the figured Barbula without fruit is not Barbula Bolanderi — I infer you mean the 105 which I have now found having lain it aside as Nat. not to trouble us and it is not B. Bolanderi nor is the 19 = B. Bolanderi — If you allude to the Weisia

on the fruiting plant or may have Fadantoidy with male flowers misplaced on the only specimen I hope you will find the sketch, for that is all we have now and probably all of that there also that will ever be found.

I send you a number of plants from Austin & among them some Fissidens — I have not Fadon nellii Can you find them

We were greatly pleased yesterday afternoon by a call from Mr Wilhelm Schimper — and during the P. M. called on Mr Agassiz then returned and spent the evening with us he has a holiday — he is very much pleased with the John Hopkins university and delighted with his kind reception here and with the treatment of the community of Baltimore He desired me to present his kindest regards to you & hopes to make you a visit in the summer

With the compliments of the season ~~with~~ I wish ~~a heartily wishing~~ you a "happy new year" ~~for~~ and

Your old friend in his 77th year
Thos. P. Jones

Continued happiness for years to come

Cambridge Dec 31. 1880

My dear Mr Lesquereux —

I have yours dated 18 Dec. Madison Dec 26th — The sketch of Dicranodontium aristatum was drawn from your specimen a foreign plant — I sketched it as much that I might see how it would compare with our own Dicranodontium — I send sketch with the others — It is not as yet found in North America to my knowledge The Pottia Barbula is explained in my last letter

— Gymnostomum Clintonii Austin
I find in looking back to my letters Letter Nov 20/76 — writes "In Sullivant's herbarium Seligeria calcaria 338 — Devils hole near Niagara Falls S. W. Clinton Sep Oct 6
And I have in my herbarium a specimen from Prof Porter given him by Geo W. Clinton which on examination ~~was~~ proved to be Seligeria recurvata mixed with S. calcarea — —
I think you will find the sketch with my letter of ~~Oct~~ Nov. 20/76 as I do not have it

— 338 — Trichostomum sp. nov. — The sketch you sent is the first draft of the 338 which I re-sketched in full on my last letter of 24th Oct. ~~which~~ the dimorphous character is seen by the male plant I now return this I am pleased to see a good peristome on the sketch almost a smooth twin tooth ~~and~~ not attached to a membrane and the leaves are feebly papillose on both sides ~~the cells~~ & areolate very feebly. the two leaves (your 1) are perichetial leaves showing the antheridia — one of them an unusual number of antheridia — very few paraphyses — this character is a freak I am glad to have the Fissidens of 3 just sent I could not find another leaf with the superscript and it is the desired F. barberi which I have re-

sketched you will observe that the plant is synoicous — forgot the male & female with in the same two perichaetial leaves — the specimen that I dissected had not advanced towards mature state and exhibited the male & female organs beautifully in goodly number —

you will observe the minute orbicular cells and the papilla opaque —

I have looked over this copies of my letters to you In my 103. ~~you will~~ Apl 20/77 — vs

— 43 Fissidens sp Nov. I have sketched this — (This sketch you have) — not then named ✝ —

— Let. May 19/77 on the first above sketch I added ~~[illegible]~~ 3 leaves —

some error here

— Let 106 — Apl 28 1877 — 43 Fis. Barbei have found this species in Sull. Herb. sketched by Mr Wright Cuban moss but not named or distributed — . . .

✝ I then remark that it is branched some 3 or 2 branches — could find male fls — infer it is diocious, I had so little I did cut up to detect & ft

In mq 103 (duplicated) ~~Apl 20~~ May 19 77 — It appears that the sketch above was returned & I amended it with leaves & I remark the borders of the leaves are not pellucid — (I meant like F adantoides) but opaque to the edge margin and the lamina is bordered by a pellucid wavy margin in 3 or more series of cells, the leaf might be said to be entire so slight an appearance of serration at & near the apex etc etc — I ask can there be two species? one a branched the other simple? you have call the branched there may be more on the back of the original plants — ?

In my 106 Aug 28/77 — 43 Fissidens Barbei I remark that I have found the same species in Sullen Herb in Wright & Cuban moss 2d collection.

Now! I think there must have been ~~were~~ two distinct species and probly in the same packet for the one above which was taken as the same as the Cuban — described as having a partial slender border is the one of which you have from me sketched & this one — The other is the one now sketched and the one which I took with me abroad & submitted to Schimper —

If you find the sketches (43) and compare them you will find them distinct ✝ mentioned in my 103. 103 dup & 106 and that the last is not described as it is not F. Barbei at all —

The one now sketched & send — is the plant I took with abroad & submitted to Mr Schimper and from which he described as published

when you find my sketches mentioned in my letts 103 103 dup — & 106 you can compare the sketches

— Fissidens Floridanus — I cannot find a specimen such as described in our article Proc Acad Nat Sci about especially description of the "flores monoici and fruiting in ramuli" etc etc so I must have taken all of it with me and submitted it to Mr Schimper and which I gave to him not doubting but I had more of it at home but I can no where find specimens of it yet I have just examined all of No 129 also 146 F. Barbeiei which I find to be F decipiens so if we give F. Floridanus in the manual we have to depend on the description in our article in Pro Acad Nat Sci without a sketch Sept 15 there is a sketch which I had made and with me and shown to Schimper which I call to mind & which you have — I send it to you when discussing our plants with Austin — please look it up & compare with description — It may be and doubtless it is an isolated specimen and no compare plants Austin sent me a specimen which he called F. Floridanus & which I consider nothing else than F. inaequalis — ~~[illegible]~~ after all can it be that our F. Floridanus can be F. decipiens with the male flowers sparely set —

Cambridge Jan'y 8. 1881

My dear Mr Lesquereux –

Your the last date of which is 11th of 81 – is in hand – I am truly sorry that you are suffering under so many maladies even one such is more than any way to be desired – I do hope you will be speedily relieved – I have been indisposed and had to lay by for a week – am recruited now

— Trichostomum flexicaule Bry Eur T. 180 is the name of the plant as pronounced by Mr Schimper at the sight of it at Strasburg and is the Leptotrichum flexicaule Schimp. Synopsis 2nd Ed. p. 142 see a hurried sketch & specimen – You have seen it before – It is however barren –

— Trichostomum N. S. 338 I made two sketches which I sent with remarks in my letter Dec. 31 '80 which I trust you have if any more investigation is required please let me know and I will cheerfully make it – what is the name to be ?

— Fissidens hyalinus – I have carefully searched into all the specimens and patiently examined every specimen and found two plants which seemed as far as I could such transparent objects penetrate to be male plants – vid. sketch in your packet now returned – if you think the sketch is of that of a male plant you can say so; the form of the plant etc. appears to me to be a male it is very minute and on my highest power – I have returned every plant over

dozen – I had but one plant from which I made the sketch sent you, and this I cut that to pieces in searching for the male.

"Desmatodon (arenarius) n. sp. the margins of the leaves are not pellucid the upper portion are closely incurved nor has the lower portion of any pellucidity as the margins.*

— Fissidens Floridanus. You did not send me the packet so marked – I trust you may find it that I may have an opportunity to look into it – I have not a specimen of it

— Fissidens Garberi Garber You did send me that species from which I made the sketch sent in my last – I hope you will find my former sketches – mentioned

* Desmatodon n. sp – The borders of the leaves are not pellucid – I have just placed under the microscope some leaves to see whether they are pellucid & I noticed on the largest leaves at the apex an effort to become denticulate very slight I had not noticed this & it only observable under high power, so I have hastily sketched this, the nerve in these large leaves does not reach the apex the papillae on the underside of the leaf after the margin begins to incurve were seen stronger the areolation at the base is slendrily elongate quadrate and gradually become obtuse and obscure

I hope my next letter from you may be more favorable and that you are well again

Your old friend sincerely

Thos. P. Sonney

Cambridge Jan 28 1881

Dear Mr Lesquereux

I am glad ~~that~~ you are about again and at work

—19— Dicranodon N. Sp. — The plant is decidedly diœcious not dioecious & synœcious — the way that the female & male plants came to be on the same side of the slip — was — I had sketched a full length plant on the back (under my lowest power) at which time I had not yet detected a male plant — so when I did find ♂ plant I had no room on the slip but by this full sized ♀ plt so I sketch this ♂ plant — which I mark ✱°1, and on the other side of the full plant I sketched the top of the stem of the ♂ plant including the bud & leaves ✱°2 and above this the expanded gemma leaves and antheridia ✱°3 —

I have looked again at the peristome and I find the basal membrane a little larger than I took it to be and have so amended the sketch ~~peristome~~ — this membrane is a little higher than the annulus (which see at the highest power) the annulus I thought persistent as it remained in place ~~that~~ on those peristomes heretofore examined —

I did give Prof Schimper plants of all that we examined & of course the Presidens Mr. & Fr Sauvai

I return the packet Fr Sauvai (I have stone cleaned out ~~[illegible]~~ — I hope you will find the sketches of the Presidens there or ~~[illegible]~~ 3 or 4 of them —

Since my last letter to you I have received a package of Mosses from Prof Macoun about ~~B~~ 2 dozen packets — I have not examined them all yet.

The first (1) was had this label —

"Ceratodon minor Austin"
"Vancouver Island"
May 7/75"

"Half of what I have
"Is it a new species?"

I was highly pleased to have this altho so very few specimens. —

I have sketched this in full and send with plants

— Ceratodon minor Aust. Vancouver Island Macoun

A very small species in close dioecious cespites ~~2 lines~~ 2 or more lines high leaves ~~broad~~ ovate-long pointed with very slight denticulations recurved margins stout excurrent nerve areolation elongated quadrate at base quadrate midway very small ovate upward — Capsule ribbed very dark red pedicel very slender: half an inch & more high green to purple Operculum conic a little curved annulus large peristome long slender ~~in pairs~~ narrow divided articulations wide apart-few-cross bars lower portion 4.

Perichaetial leaves ~~clasping~~ & inst others not pointed clasping the stem and ~~broad~~ ovate nerve long excurrent.

The sketch has plants nat size — two peristomes first under my usual high power the other highest magnified power — the perichaetial leaves clasping crenulate slightly & stem leaves down to the lower oval — on the other side of slip is a male plant under the usual high power showing the antheridia & plant nat. size — also two sets of perichaetial leaves of other plants

Now — the plant which I sketched and sent recently thinking it might be C. minor from Prof Macoun as he had first named that plant — and had not sent me one of the present sp I inferred that it was C minor —

— Ceratodon . . . . Cypress Hill, Ont. Macoun growing intermingled with a Bryum in a swamp — side sketch & plants — on the back of slip 2 old dry capsules

plants nat. size — Eucalyptus bound down operculum (~~obovate~~)

You may see a young oval capsule with operculum — an operculum crumbled at base dark red — annulus — the peristome — also one highest power with 6 to 8 cross bars and wide apart articulations (I observed in other peristomes that the narrowly marginal in the slender upper portions which I think ~~Austin~~ alluded to) — One clasping perichaetial leaf (and none ~~other~~ of the clasping nerve extending) and then the stem leaves which are denticulate at the long point I trust you will find what is needed to determine the species — I send also no 5 —

— Grimmia Hagriopedia Cypress Hills Macoun

a fine specimen I send you a packet of this to keep

It not G. anodon — it has a peristome and ventricose capsule of plagiopodia — the leaves however have longer hair-pointed points than is expressed in G. plagiopodia the black or dark color of the plant seems to differ.

I have been an invalid for some time past and have not worked daily as my usual custom I hope to make up —

Mr Watson has returned — he collected a few days ago — says he collected mosses in the excursion — I have not had them yet

Your old friend sincerely
Thos. P. James

Cambridge Jan 24 1881

My dear Mr Lesquereux

I have sketched three slips of Drummonds Desmatodons - viz —

— "135 Tortula bryoides" it is
= Desmatodon Laurei - I have sketched from the 3 sets of Drummond (all alike) it is quoted in Schp Syn. p. 157 ss. "E. Rocky Mountains Amer. Drum" merit & noricitus" we have it from Colorado by W. Roth & Downie -

— "145 Tortula suberecta" this is
= Desmatodon obliquus from 2 sets Drumd see Sch. Syn. 2 Ed. p. 187 = B. suberecta Drumd see Bry. Eur. T. 136 - letter press = "145"
You will see by the above quotations Schimp does not confound these species - and from the sketches that they are right!

— "115 Desmatodon latifolium". This is Desmatodon cernuus from 2 sets Drumd. see Schimp. Syn. 2 Ed. p 186. = E. Canada misit Drum " Bry. Eur. T. 137 - lett. press - p. 8 = "No. 115" -
We have this species Ruby Valley Nevada Watson Manitoba Boggy creek B. Am. Macoun

Trichostomum corniculatum - see Lesq Pacific coast Mosses p 10 - 47. T. anomalum Sch = T. corniculatum - Vancouver's Mt. California when I can go up to Sullivan Herbar: I will get the specimen of Chipplers Exp. and sketch it -
(the weather is so bad that I postpone going out, especially as I have not been out of my house for a month - I intend soon to go out)

— Barbula subulata I have made another a portion of a leaf (o) the margins can hardly be said to be recurvate they are like the uppermost (& next) leaf in Bry. Eur.

T. 160 - by no means double margined as in the third leaf the lowermost in the illustration. The areolation at base is elongate-quadrate - the leaves are as represented not more narrowed than they appear on the side of the slip where the specimens are attached. The male organs are below the female and are encompassed with small and larger perigonial leaves (3) the stem of the plant is so short that every part is so crowded that the male branch or bud could not be cut off seperate. There are a number of leaves represented in Bry Eur T 160. You mistake B. aciphylla for some other: for that sp. is dioicous and of an entirely different aspect - The nearest to it is B. microphylla -

— Barbula Raui Aust. on rock, Medayorda (Texas) Bechelt
See sketch - It is a small plant dioicous - stem short the leaves crowded in a rosula - leaves concave ovate somewhat spathulate acuminate areolation quadrate at base rotund upwards obscure - perichatial clasping mutic apex thin ecostate or very slenderly costate - Capsule long cylindric ribbed pedicel long - annulus in two or three rows slender operculum erect long - peristome arising from a narrow membrane teeth long and much contorted. Male plant small antheria numerous - see a sketch of all the leaves etc of one plant on the back of the slip

— (2) Barbula semiloreta Sullivant? San Jose California Mrs Bush 1880
See sketch of this - I have not seen B. semiloreta I think this comes near the fig in Sullivant Whipple Expled except this sp. has recurved margins - I trust the sketch will be sufficiently explicit.

Through the kindness of Mr Watson I learn that Bruchia microcarpa - & Splachnum sciifolia Mitten lit is published by Dr. A Jaeger in Verhand St Gall. Nat Gesell (you will find it in the Jaeger pamphlet wh you have) 1869 - See Bot. Zeit XXVIII 95.
I do not know that we found these Bruchias precisely these may have been in the Drummond set which Wilson had Mr Watson failed in finding any clue to the Wesie Rugeliana Sch. It might have been named by Sch in a letter to Hampe

Cambridge Feby 1 1881

My dear Mr Lesquereux—

I have sketched eight sketches & have for more than three days during the whole of day light worked at them and so fatigued my eyes and am advised to take a day's rest at which I will see to the Dicranoid or Plinthobrias etc etc. and so I now write about B. marginata etc. I have numbered the sketches in red ink #1 to #6 — and would like you in your next report what you determine each number to be —

— No. 1. "Barbula marginata California mixed lot which I have separated B. virescent

— #1 — B marginata duplicate — which I drew from a yellow & a dark spot — thinking they might differ

I return your specimens —

— #2 "Barbula marginata from the granite coping of the walls at the White house Washington D.C. 5.P.M. on the back of slip is a specimen of the plant under low power I did not find male — I will look further thro my plants for such, if you require it

— #3 Barbula — Norfolk on brick walls Apl 67 J.P.A. on the back of slip — a plant under low power & a branch with male organs — the only one thus that I found — it may be dioicous —

— #4. Barbula — on walls Little Falls N.J. austin on the same slip as #3.

— #5 Barbula muralis Easton Pa. on the back of slip a plant under low power is a fertile plant with a male branch

— #6. Barbula muralis var. aestiva on stone walls near Lodi N.J. June 67 Austin

this plant has not transparent leaf points and has decided recurved margins and terminal male organs on short branches —

— Barbula muralis Vis by C. C. Affelius from my herbarium the only one

— Barbula marginata Cheshire England
Schimp. mss.

All my sketches were drawn from the specimens taken unquestionably from the packets from the localities represented — each sketch made from the packet as located before another was taken up for drawing —

Of No 19 I have not a great many plants but I have enough to determine any point you need (Did my sketch with additions meet requisitions? if not I will resketch the whole plant — annu — I am desirous that our work shall bear the closest criticism

With regard to the returned Fissidens — you enquired of me if you had sent F. Floridanus I replied you had not — and as the specimen sent was F. barbei and was so labelled inside F. barbei — I was right in saying you had not sent F. Floridanus — Being done with F. barbei having sketched and being your specimen I returned it — not thinking that was the plant you had so much searched for — I am glad it is all right now.

I have not seen Barbula fooriana to compare with our specimen = 111 — but do think it is that species — I return it & if you consider it so quote it I suppose you will have that sp: by C Muller p.d. Mohr

I send for yourself packets of B. marginata? from Walter of the White house — B. muralis Easton Pa

After sketching the above I thought I would like to see sketches of foreign specimens so I drew ~~from~~ a sketch from my only specimen from Vicby — Effelinus and our American specimen do seem more like it as they all have recurved margins which are black opake border even under the microscope and are monoicous at least where I found male organs they were terminal on short stems —

Barbula marginata I have sketched from a specimen of Cheshire Eng Schimper mss, I have packets from Ashley — Bowdon — Castle Howard etc — I observe the margins of the leaves are not black recurved but the contrary they are plane, yellow margined somewhat like Fissidens adiantoides translucent ~~yellow tinged~~ under the glass you will observe by the cross sections that they are not recurved — In Eng. Eur. this sp: is represented to be dioicous — but in Schimper's the male fls are the same as the preceding B. vahliana which is monoicous — I did not look out the male on all of our species may not be the same sp. you will determine and let me know.

Hpne is reported in the Whipple Expt by Sullivant a Barbula marginata — I do not know that the plants of that Exp. are in the Sullivant herbm when I can get out I will look for it & fresh communication. And now when I have looked at Dorm plantulinigetes I will report results —

— No 19 Barbula Floridana sp.n. if there is any thing more with this specimen required signify it —

I send for yourself Packets of fine Barbula muralis & B. marginata? Norfolk

Ceratodon minor you remark you cannot see any marked character pointing out to a truly differenal species — I have described C Minor in D. purpureus — Do you make it a species? I wish to know that I may so report it to Prof Macoun when I report on his last consignment.

— ~~Barbula~~

But why did I not get ♁ gemma is a mystery – I examined every plant

— Barbula lævipila var minor sketched from the specimen you sent me all from one plant and which I return in your packet I could not find gemma but an antheridia turned up so I infer it is monoecious – The capsule seems very long –

— (30) Barbula lævipila ♂ Oregon Hall see sketch – the plant is quite short pedicel short capsule small oblong – oval no operculum no annulus on the old capsule – leaves have a more open areolation at the base than in your plant – no antheridia detected I examined every specimen 10 of them without finding any ♁ and thinks it is dioecious and may be another species I found a stem which I thought might be ♁ but no antheridia the leaves are crimpled short 1 to 3 nerved peculiar & abnormal see back of slip

— Barbula lævipila Nevada Watson see small sketch as the capsule was so immature and could not be a determined species for want of a peristome – I drew a small sketch in searching the stems seemingly large bud blunt perigonial leaves – see on slip

The margin of the leaves have a peculiar form of papillæ ~~[illegible]~~ and are plane no recurvature

Cambridge Feb. 11 1881

My dear Mr Lesquereux

I enclose my sketches made since my last to you and return specimens –

With regard to Trichostomum coniculatum which a couple days ago I wrote to Sullivant for – I failed to get as the duplicate Massey of Whipple & Ford are not ~~in~~ there nor is there a specimen among his Musci ~~of the~~ so I could not ~~get~~ make a sketch –

You make it a syn. of T. anomalum in Pac Coast Mosses and Lindb. in his Musci de Tyrolis etc 1864 also makes it a syn. of T. anomalum = Barbula anomala See Bry. Eur. T. 169. – I got in Sullivant two good sketches labelled Trich. Coniculatum ? or Trichostomum Barbula !! yes. these sketches were made from packets ♁ Trich Barbula California Bigelow ♂ + Trich. barbula ? same locality in their + it is a note of yours near Trich. barbula of which it differs by the inflorescence perhaps T. coniculatum Schw Mus l. p. 384 a species unknown to me – The leaves are evidently denticulate above – this is all I learn – if you wish it I will sketch these 2 Bigelow plants ~~which~~

~~Not that~~

— Barbula insulana ? Do not see sketch (as to the B. Beckeyi – if you are credited as the author MS which must have come from you to me in some back letter) it is made from your specimen – I could not find ♁ organs – I thought I had ♁ terminal branches but when I cut up the apparent gemma a member of them there was not even antheridia in any of them but in all several small transparent worms –

as to B. insulana ? Do Not – Mr D. H. himself placed no confidence in it as a sp. having so indifferent plants to go by determine it – Schimper Syn. p 208 makes it from the De Not. specimen a syn. of Barbula cylindrica There was no Bar. cylindrica in Sullivant – Lindberg has it as a syn. under Tort. cylindrica p. 249. 1864 and in his adnotationes 1865 he has it a syn. under Tort. cylindrica Taylor.

— ~~Barbula~~ Dermatodon plinthobius is figured in Sull Icones

— Dermatodon arenarius is also " " .
so I do not sketch them —

— Dermatodon Porteri - I have sketched you can see all the characteristics and compare —

— Dermatodon neo Mexicanus from 95 S&L Ed 1 must exist — I have taken a specimen from 124 S&L Mus Ex. 2 Ed but ~~before finding~~ I found it was not it yet I made a hurried sk. which I ask you to name from ~~120~~.

— 30 Dermatodon latifolius v. glacialis San Juan Colorado Bradyge I ask is it right!

— 114 Didymodon oblongifolium Drum sketch on the same slip with Des. Porteri = D. oblongifolius = D. flavicans = Barbula obtusifolia

— 137 Barbula humilis Drum — Tort. humilis = Babula humilis = Des. flavicans = Bar. obtusifolia

— Tortula obtusifolia var brevifolia from Lindb I made this hasty sketch for your eye

— Barbula marginata sketch from a plant from Sullivant herbarium for your examination

— Barbula subulata sketched from the the specimen sent a few days ago

— Barbula laevipila var minor this sketch is from your plant all from one plant which I return in ink with the packet in fact - I could not find a common this plant but an antheridia turned up so it is mon: and submit the sketch for you to determine whether it is B. sub marginata or not

— Bab. inclinata Wt & Mz I made & sent you a sketch June 1876 - with a remark "that there are so few capsules that I would not cut one to look for an annulus so little of it - that probably we had pass it" I sent the specimens & sketch this latter was not returned but the plants were returned and these are mounted - only one good caps. ~~and~~ one very young - so it would be useless to remove it. If you choose it may be omitted

In your letter 17 Jan 1876 in reply to my letter you say — I am satisfied that Barbula inclinata is right! —

— Barbula Jonesiana

— Barbula fragilis is ~~sitter knots on specimen is in fruit~~ Drummond's Capsules in fruit Do you wish it sketched?

— Gymnostomum calcareum see sketch this I recently rec'd from Mr McKay from Boston which I referred as above am I right! —

— Barbula Jonesiana — I sketched and sent it to you with specimens of a plant from Texas Bell Co. which you said was right

You have Lindbergs pamphlet 1864
I find in Sull: herbarium a parcel containing many of not all of Lindberg's pamphlets — among them Acinot Boyol 1865 5 leaves — I send it to you to be returned to be replaced — I infer you have his other pamphlets —

— Trichostomum flexipes is not mentioned in Lindbergs Acinot Boyol for 1865 the only species of Barbula mentioned are Tortula cylindrica and T. vinealis

— Barbula subulata City Creek Canon Watson I have made a hasty sketch of a Utah specimen which seems to me to be right! yet I could not detect male organs or gemmæ on the stems of all my plants 15 stems without finding antheridia — I found among the plants stems with one — having the minute antheridia so I drew it — See on the back of the slip - but when I came to the areolation etc I saw it was not a Barbula at all but I did not cancel it but left it for your amusement

I sent you a sketch last april the areolation is a very close etc and obscure particular in the upper portion of the leaves not so with sketches of foreign specimens herewith from plants which I have, one schistidium pulvinatum, Bogeso Moist Schimper and the other from Hoffmanni in sapi dicum B. pontum - which show an upright capsule without gibbous ventricousness as one side and a less opakeness of areolation

- 224 Grimmia Sphærica Mr Luke Athabasca Macoun this is the second sketch the first I sent April 1880

- The 20 Drummond Mus. is not the Grimmia sphærica - and yet I now find that Schimper p. 239 has "In Canada superiore Drummond legit I will search no 20 for it again

- Your from Hoffmanni does not correspond fully with G. sphærica - it is barren

- The 224 G. sphærica Macoun does not agree altogether with that specimen it is barren I have now to examine some Grimmia collected by Mr Walker recently And if no G sphærica be found nor if you have no other plants resembling that specimen to submit I am inclined to think this specimen will not be credited to North America

"26 Lyon pulvinatum" Drummond is Grimmia anodon I have since writing the above made a small sketch of this plant I could in no instance detect upright symetrical capsules but found all caps more or less ventricose I looked thro' them all

Cambridge Feby 24th 1881

My dear Mr Lesquereux

I have sketched Braunia Californica - From five seperate specimens of your packet, which do not appear to differ materially from each other

Spn 1st I sketched first leaf under my usual high power - the lower leaves have the transluscent point the upper one from the apex of the stem have very long points

Spn 2nd - the leaves lower ones much the same the upper ones not quite so long pointed

Specs 3rd 4th & 5th in form show for themselves

I managed to get my usual highest power to work and new additional more magnified areolation which are to be of a longer form more opake and irregular shape than those of the San Jose Spn

I selected a strong stem of the San Jose Spn and have sketched it which is larger than your B. Californica - you have of this sketched which are of San Jose unless otherwise labelled ~~this~~ I have drawn areolation which is more open larger broader more quadrate and orbicular than B. Californica showing one or two papillae centrally these papillae seem in both seemingly as the upper side of the leaf of Ceratodon

I return sketch of Hedwigia & leave the specimen plant on the slip -

The San Jose plant was for you I return it

I sent this San Jose plant thinking you could

Cambridge Mass 1881

My dear Mr Sesquerey

I have not Dicranum perphyrodelion – Campylopus uncinatus nor D. virginicus – I have looked thro' all recently ~~secured~~ moss from Austin and in all other places for them. I believe I never had them – if you had them I think I must have sent them to you during 1880 please look in your cabinet I might possibly get them from Mr Rau shall I write to him for them? if I do so I ought to ask for all of those which we have not had and need.

– Grimmia ~~Sphaerica~~ – I have ~~gone~~ re-examined No 20 of Drummond's Mosses all of the three sets which I have – I looked thro' roughly into them and every capsule some ~~18~~ to 30 were ~~opened the perichatial leaves & directly observed the~~ * ~~most of them~~ and found ~~they~~ all had verticose capsules and curved pedicels and ~~un~~recurved margins to the leaves – I did not injure the ~~No~~ specimens I very carefully opened the perichatial leaves and distinctly observed the capsules – ~~most~~ of them were ~~large~~ more robust than our western specimens but were very like my N Brunswick plants – In Sullivant's set there is a little packet marked "Grimmia anodon" in Sullivant's hand writing I am positive there is no G. sphaerica or a single plant with symetrical capsules and straight pedicels or recurved marginal leaves – all were G. anodon –

Grimmia Hoffmanni ~~Hoffmanni~~ = G. pulvinata collected by you in Lancaster Ohio – I put a specimen of this under Microscope ~~&~~ which had so peculiarly a broad nerve that I have sketched it there are no fruiting plants ~~but terminal~~ male plants – See sketch – ~~What is it meant~~?

soon be at that genus – I have many sketches to submit which I will send as we progress –

I saw Leptodon from San Jose

a sketch of Mittenia Trachypus – a Macromitrium and other Pleurocarpi

You ask about my health. I find I am by no means as strong as I was a few years ago I have an impression it is the advance of old age assisted by attacks of bronchitis. I am in my Seventy second year – I have been housed since Christmas for a month I was not outside of my house the weather was so severe I have gone out a few time recently The thermo. this morning is at zero

I hope you and I may recruit as the weather becomes milder

Your old friend truly

Tho P James

Was that Bailey's Dimitotea right?

I have an attack of Bronchitis which confines me renders me unfit to sketch it came on Saturday P.M. It is yielding yet I am still miserable in a day or two I will be at the microscope

Since I began this letter yours of 1 March has been received

Although I now send the sketch of Grimm ancistrodes I will still sketch the Grimm: trichophylla and the two G. californica of the S. & Mus. exch. and send to you when you can compare

If you will send me Mim: alata Gaertn I will sketch it also those I have of American

The variety curvisetta is of no importance and can be left out of the manual

Grim: brachyodon & Jamesii I understand you do not consider these distinct from G. moptana nor even varieties of G. montana I do not know whether you expect me to sketch these

In making sketches it takes me a day from 8 to 5 o'clk P.M. to make two drafts some times only one a day – I am getting more expert however I will not slight the draught of them if I know it

It occurs to me that you asked if Grimm ambigua is found at Easton it is found there I found it myself and I have it from Raw in fact

Prof Wm James of Harvard is Assistant Prof of Physiology is the son of Henry James of Quincy Street Cambridge – he is not my son

From your old friend sincerely
Thos P. James

Cambridge Mar. 7 1881

My dear Mr Lesquereux

I have sketched your plants and others which I now send –

I hope you got my letter of Mar 2/81 with sketches Grim: sphaerica Hoffmannii and remarks and have cleared up those sp or have determined the plants discussed –

— Grimmia Brandegei Aust – you have settled as G. plagiopodia so state it in the manual

— Grimmia ancistrodes – I have made a full sketch – found a young operculate cap – it made an accurate form the calyptra was a loose one yet I think true – the second peristome is an enlarged one of the first a peculiarity is the extension of the columella with apparently very slender filiments on the back are two skeletons under ½ power

— Grimmia Alderney Mann (Cal Watson 1880

This I had sketched from a sp. of Watson before yours was rec – to my eye it seems remarkably like yours – it had several deoperculate capsules all with the protuberant columella I did not observe the slender filiments around it like in yours – probably of no importance – You will observe that the Watson plant is very much smaller than yours – I got but little out of clusters of mussi do you think it is G. ancistrodes? – I have not yet compared it with G. californica I mean your plant I return your plant.

— Grimmia hamulosa I have made the best sketch

not having a good capsule - no operculum nor peristome it is dioecious - the form is seen on the back under 2/3 power I hope the sketch may prove odd - I keep the packet -

Grimmia leucophaea var. I think it is a variety of that species hardly gracilior - I keep a small example I got a peristome from an operculate capsule - the lower peristome is an enlarged st of the upper - the piliferous point to the leaves is not as lengthy as common the lower leaves have very short poles - the areolation etc do is G. leucophaea

2209 Grimmia Mt Brewer leg. I did the best the plants would afford I found a little capsule which furnished the form of the operculum and also of the peristome - I hope you can make it out I do not pronounce upon it I return all of it -

Barbula insulana D. Not original specimen I drew the capsule without disturbing its position in the leaf under the camera - I cut the tips of two stems which proved male & female which I have sketched on other side of the slip - I submit it to you as you have my sketches of your plant and do not compare to do which I should have to make another sketch I return the entire plants except the tips of 2 stems

Grimmia Alderney Marin Co Cal. Watson I have sketched a singular plant which Watson recently brought from California - I take it be a Grimmia from the areolation it is of brownish color and a number of the stems have singular prolongation with slender scales and curved in form one a short stem shows the archegonia there the prolongation originates the small leaves are from around these organs perichetial The stem leaves have a strong yellow nerve extending thro' but by no means piliferous and have a curved apex - I had sketched it before your last came to hand

Barbula nitida Lin. Mg I have not completed a sketch of this

With regard to Barbula ~~inclinata~~ inclinata I think it had better be omitted altogether in the Manual for these reasons - It has not been found anywhere else in this country and I have an impression that our specimen is not an American

I keep strictly my american plants in my herbarium in boxes where no foreign one are allowed - and I keep all foreign plants in separate and distinct Boxes - every box is labelled outside with its contents.

Now I believe our specimen from which sketched that - I got it out of some foreign parcel to compare with some under investigation and left it among my plants - and finding it there at an after time with name labelled but no locality - I recollect finding it in my box and inferring to be an American I wrote on the packet White Mountains fully impressed that it was from that station as it was among my Wh Mts plants - No harm will come by omitting it

Last week I received a package of Musci from Prof Macoun containing 2 dozen - more than half are Grimmias - two Barbulas - by a casual glance into the packets they seem to be indifferent and will be troublesome work

And on Saturday night I received a bundle from Orenno Nelson 18 inches long 12 inches wide and 5 inches deep which contains his Moss Collection in his late excursion - I have not opened it - I am alarmed at it - his California Mosses doubtless has many novelties - A double handful which he gave me a few days since was casual pickings

Cambridge Mar 12 1881

My dear Mr Lesquereux

I have sketched and send —

— 205 Grimmia californica Sull. drawn from a specimen of your S & L Mus Exsicat — the capsule is unmoistened and is ribbed — the lower peristome is magnified the magnified areolation is of the leaf * the thin leaves first are the two next to the vaginula (perichatial)

— 206 Grimmia californica var drawn from 206 Sul & Les Mus Exsic. there was no capsule in the packet so leaves only.

— 207 Grimmia trichophylla from 207 S & L Mus Exsic. a second peristome is magnified I missed getting the annulus — the small & thin leaves are perichaetial the hair points of a couple leaves are bent over — on the back of the slip are sketched the leaves of the plant in the order as they come on the stem

With these you can compare G. ancistrodes the sketch you have and you can determine the positions —

— (?) Grimmia atrata near Otterhead Can. Nat. I had only one very old capsule — I figured leaves in variety — the plants are small and I cannot make any other species of it — I regret there is no operculum peristome etc —

— Grimmia atrata — I found in my herbarium two packets of this species — I hunted of the leaves of the specimen from Schimper

I return the sketches — those sketched from your 215 Grimmia Montana S. & L. Mus Ex. and which were seperated as Austins New Species G. brachydon & G. Jamesii you will call them all as originally given by you G. Montana and report his N. S. as synonymes —

The Grimmia Donniana var curvisetta — is probably

an accidental curvature and of no import and can be passed

I certainly did not know it was against your wish that our new species in the Academy of Sciences Boston were published. ~~or I never would have consented~~ but had always thought the contrary ~~when~~ I sent you the results of Mr Schimper's self from Strasbourg ~~you suggested this publication in some of the Journals~~ I proposed this should be postponed until I return ~~after~~ in time I consulted Dr Gray and he said by all means publish in the Proceedings of the Academy In your letter 12 July 78 you wrote "Pleas what to do with Schimper's diagnoses. My first impression was to send them for publication to the Gazette either preserving the latin diagnosis or translating it in English .... perhaps it would be better to wait publishing them until you return"

In yours of 16 Nov. 78 you write

"so we may have published ~~as Prof Gray~~ in the Mem. of the Acad of Boston as Prof Gray proposes .... I should like to have that paper published in that way as I am a member of the Academy and have long time wished to make some contribution to it you might speak with Dr Gray about the plan"

Campylopus — I find I have sent you sketches of Camp. Pacei, Camp. gracilicaulis, Camp. sabulicola, Camp. augustertis, Camp. Donnellii also Calymperes Richardi ~~this~~ you have not in number described a Calymperes — It was collected by Barber also by J D Smith — I have ~~a good~~ new sent sketch I have good plants and one fruit other species Calymperes I had but think I did sketch them but sent unknown

I have made the list in a continuation of that sent for your convenience in licking or striking off those species that you have worked up

Dicranum porphyrodictyon I have not had

Campylopus — I find I have sent sketches of Camp. Pacei — C. augustertis — C. Donnellii C. sabulicola & C. gracilicaulis I had no C. virginianum of Austin & N. & some other sketches also

Calymperes Richardi I have sent sketch of it which you have omitted in the number of sp. described It was collected by Barber in Florida also by J D Smith — I have good sp. with one fruit I have compared it with sp. of Andrews (Spruce) and find it identical you will find it C. Mülli Syn p. 834 also in Mitten

The Austin Calymperes I had specimens and sent them to you unsketched

Dicranum porphyrodictyon I have not had may be we could get plants from J Donnell Smith ~~Dicranum~~ he lives in Baltimore (Austin & N.)

During a days rest from the microscope I made a continuation of the list sent you some time ago of the species of our enumeration for your convenience of licking off or striking out species as you have worked them up which I now send you

I find on your "number of sp. described" that you have omitted Leucobryum — a Fremantodon and only 3 mosses

I am again able to look thro' the microscope but must refrain from so long an application thereof I feel the effects of so close work

Mr Matson called recently & I learned from him that his collection of Spruce was made in British America Brit Columbia Vancouvers Island &c &c

His collection of Spruce is ample and in all cases the fruits are in fruit some exception may occur when plants are intermixed

Your old friend very sincerely

Thos. P. Sullivant

Cambridge Mar 15 1881

My dear Mr Lesquereux

Yours of the 7th & 11th inst is rec'd

I send sketches just made —

— (27) Grimmia . Gibbons California

I have several packets of which I took up to look for the protubrant columella and selecting an operculated capsule for this purpose and finding so fine a specimen I concluded to sketch it —

you will notice — the protuberant columella other capsules had this character — the peristome is bifid ~~pilus~~, inticulate fringinate resembling 5 apiculate the lower one may need the addition single-rowed small — the * seven slender thin perichetial leaves are the first drawn * the capsule peristome operculum the columella are drawn under the usual high-power — the pinks — the stem leaves show a very recurved form short hair points and drawn under 2/3 ~~for~~ usual power the circulation is the magnified state of stem leaves on the back of the slip is the plant under 2/3 usual power

I think it is the same plant as b V. 14. p 187 - Sullivs Whipples Expedition and the same (G. ancistrodes) n. sp = G. Watsoni which name I approve much

— Grimmia California Dardenelles California I made this hasty sketch from a specimen by whom collected is not mentioned ~~and the packet of the same is labelled California~~ probably foreign — I submit this — ~~and wish~~ and wish you to say whether it is the variety 2 of Mus Exc — which is not ~~you to inform me if it is not the variety~~ ~~which you gave as Mt Mt Ont.~~ in fruit then

(39) Grimmia unicolor . Thunder Bay Can. Macoun

This hasty sketch seems the same sp that I sent in my last

as Grimmia Ohata is it not identical – if so I have not G. ohata – It had been labelled by Mr Watt –

Cuclidotus the specimen is misplaced I will look it out & report fully – I know it is the species

The Weisias are all of them I had been thinking of W. serrulata – W. crispula & W. cirrhata but they are under their proper genera – all right

Grimmia Coloradensis I know nothing about it never had it.

Bryum Wimmeri will come up hence

I have had but one specimen from California and this had not that persistent columella and the operculate plants did not show this feature. – the specimen of G. californica that I stocked with this differed from those of the new plant –

I think there is a Mittenia – I will find out and let you know in next

There are Grimmias Barbula, etc in Mitten's collection & Grimmia in Necker's Conspectus

Mend

that you expressed a wish to have that sp I send a basket for your acceptance

Cambridge March 18th 1881

My dear Mr Lesquereux

Your of the 15th inst is recieved I am sorry that the list of our Enumeration should have annoyed you so much — I had omitted continuing the copying for want of leisure — but having taken a day or so to recruit — I sat down and made it, it is intended for your own convenience to erase such species as you had finished, not that you were to go over work already done and revise every thing — I did it that you might see what had been ~~passed~~ worked and to look it up omissions and enquire wherefore ~~omissions~~

Weisia Leyeliana is no doubt but a Manuscript name to Hampe and no where described and further not being distinct enough to entitle it to a specific name should be and you have omitted

— Campylopus — from Saskatchewan I sketched & sent to you April 22d 1878 ~~Some time ago I sent~~ with specimens but as it is misplaced I have just hurried a small sketch ~~&~~ & a few specimens send — It is of no importance and you will drop it & do not trouble yourself about it —

Lescobryums — the two are barren and no full description can therefore be given so let them pass — so also the Ochobryum — this species has a sessile capsule but I could not find a single capsule & only got the name from Mr Mutten who pronounced upon it from its color so uncertain is it — Omit it altogether

— Fissidens Donnellii I had a small plant of this which I sketched & it seemed to be the same as

Fis: Gaberi ~~I sketched~~ it and sent it & all the (very few) plants to you May 27 1877 – I have none of it – nor the sketch – not returned

Pest. Algarious was a name connected with 303 etc which you had investigated I have made two sets of sketches of them and I doubt not all is settled about it –

Barb. Beckeri – B Ravenelii – B Clavatum were all done for and I regret that you have had the trouble to look over them

Barbula Pottia Barbula we had from Dr Gaber I sketched and sent to you Dec 19th 1877 which has not been returned you pronounced it all right and were pleased to have it –

I have no recollection B. Donnellii and think I never could have had it

The Grimmias – Sphaerica – G ambigua I did collect at Eaton Pa) G Brumbyei – G ancistrodon – G Notione – G. Montana – G Jamesii – G Brady ider all of them are reported upon in my letter of the 15th ult

I am truly sorry that my indiscretion in making and sending the list should have given you three whole days I intended to have rendered you assistance

It was my intention when I would rest from the microscope to return to ~~pursuit~~ continue the list – into the Pleurocarps – Shall I do this?

I now send

(61) Grimmia pulvinata? Lake Superior Mr Macoun

I ~~had~~ send my sketch I had commenced this sketch thinking I had the pulvinata until I come to the peristome (I cut up but one capsule) thinking I might finish it and I now send it with specimens several capsulate Do you think it is Grim – apocarpa? Another specimen barren No 30 found below

I have gone through Macoun's plants and find no novelties among his Grimmiae (unless the enclosed is one) Many were barren and troublesome Some Barbulas among them B. rubiginosa Mitt I send a specimen Dicranums several varieties of Dicranum scoparium

In looking casually among Nelson's collection I got Hypnum robustum in fine condition fruiting etc – I recollect you had expressed a wish for a plant so I now send you one

In examining Macoun's plants yesterday I found a Grimmia (sketched in) which I thought seemed like G. pulvinata so I commenced sketching it and all appeared so until I come to the peristome which I now am inclined to think be G. apocarpa – I however concluded to finish the sketch and submit it to you – No 37 of Macoun's

I send also a packet of a little barren Schistidium – may the association of Grimmia pulvinata but being barren ends it –

– Barbula rubiginosa Mitt Yale B Columbia Macoun leg – I send a good specimen

Many of Macoun's Grimmias are barren and were troublesome & could not be determined – There were varieties of Dicranum scoparium etc

– Hypnum robustum – In casually turning over Mr Nelson's plants I found good plants of this species some in fruit and recollect

3

Cambridge April 4. 1861

My dear Mr Lesquereux

Your favor of Mar 30 is now in hand and I will at once look into the objects given I sent a Postal card of inquiry a few days ago – and now finding you are able to do more work I send some thing out of Mr Watson's recent collection for your determination etc sketches & plants viz

— 51 Phabdowisia schistis? – I made the sk and submit it if time to add to localities on our list – please state of right –

— 55. Barbula Fort Colville Washington Terr
This may be a described sp: but I do not find so I think it is dioicous as I could not find ♂ organs on the stems of the fruiting – I think the sketch is full.

— 60 Barbula Fort Colville
Seems so distinct from 55 that I think it some novelty both are drawn and my highest power of camera if you recognise them please state what sp.

— 65 ? Granite canon Northern Montana
I regret there is no fruit – it being interesting I thought it might interest you

— Thamnium Coeur d'Alene mountains Montana Territ.
I have made sketches of this – also of Drummond's 119 Hypn: Neckeroides Hab near St Louis from sp. from my set of Drum – mostly of Southern states
On the Montana ~~A~~ sketch I have made remarks on the outside wrapper and if the sketch is not explicit enough please suggest any thing more & I will cheerfully ~~go~~ make further sketches
I have sketched Drum 119 that you may see & compare – The first thing that strikes one is the perigonium of the Montana sp. it so very large and like a Bartramia perigon. – Drum 119 – has small gemma sparsely on the

will as well that I embrace all of the new species – which you require to know about please see what you want and send me a list and I will apply for them I have no doubt that he has duplicates of these

I will take up the hints of your letter now

Why not come on to Cambridge when you leave home May 1st you shall receive a hearty welcome at my hands and I will gladly have at my house as long as you will stay if it is all summer

Very truly your old friend

Wm. P. James

branches so also the Lesq. Jurassic — The perigonial leaves of mountain hills are sketched under 2/3 usual for a species so large — the areolation is very close and margins very finely serrated — the base — the leaves are reddish the antheridia are numerous for a species — The squamiform leaves of the main stem from the rhizome like stems are very peculiar lightish transparent except at the junction with the stem and gradually up the nerve — and the remarkably ciliate all on the border there are five of these leaves on the slip — the branch leaves are first drawn under 2/3 power but to make its characters more distinct I drew 3 under highest power you will note the spinous nerve —

I have much of the Walson Mosses to examine yet — there are many orthotricaceae and good many of Hypnaceae — I have picked out all the Fontinalis & Barbulas — much to look through —

~~You suggest~~
I will take up material of your last and report when investigated

Your old friend truly
The P. James

Cambridge April 7 1881

My dear Mr Lesquereux

I took up first the ~~Spiers~~ Moses or Oregon Mr Hall? and I now send them with the results as remarks on the envelopes of the specimens — I made sketches of nearly all — & that you may report to your correspondent

— No 1. Rhabdoweisia — it may be R. denticulata without the denticulations — the points of the leaves are narrower and sharper than Schp. illustrations has serrated leaves — but I could not get a peristome capsules too old or too young — I return all —

— No 2 Hypnum diversifolium!

— No 3 Hypnum aeneum Mitt. It is identical with Mittens specimens &

— 4 — Fruidium pygmaeum! a few fine capsules —

— 5 — Hypnum Stokesii and Hypnum prolongum var. ~~there~~ there is no H Stregosum for both sp have papillae or serrated medial

— 6 Hypnum aggregatum Mitt. It compares well with Mitten's specimens & my sketches of that sp

— 7 Hypnum spiculiferum Mitt " " "

— 8 Hypnum I do not find this as yet may be you can recognise it

— Orthotrichum — It differs from Sullivantii to I comes in the cilia being ~~[illegible]~~ elongated & simply plicate — and being dioecious — I could not find ~~male~~ gemmae on the fruiting stems but I did on sterile plants sometimes two gemmae on plants of equal length with the fruiting plants & branches with one gemma some plants quite short and leafy I did not get an operculum I return all

— Tetraphis ovata — ~~the~~ ~~the~~ I could not get a peristome so few capsules — the quadrate cells of the lower portion of the leaves are not so numerous as ~~represented~~ represented in Sch Bryo. Eur.

You suggest perhaps Mr Howe could furnish O. Ranie — I have no doubt but that he will on application — If I write for it it might as

Cambridge April 15. 1881

My dear Mr Sesquerux

I reply to your favor of March 30th begun 21st – 81 –

– Zygodon California ~~Cyathicarpus~~ etc. I have sketched some of them, which I retain for the herb. the others are at the Sullin. herb and the weather has been so unpropitious for whatever I suppose myself convalescent I become horse bored & I have not been willing to go to the herb. but hope to soon when I will get sketch & send

In my letter I asked you if I should apply to Mr Rau for Grom. Colorado use etc – please send me a list of the Austin's desiderata for Mr Rau –

In reply to yours of the 10th – I think decidedly that you should continue going on with the description until you leave (May 1st) and not go back now to revise – it would be better not to revise a part of the work now but when through to then make a continuous revision of the whole

You have the Orchot Americanum of Austin please send it to me for a good sketch –

– O. Brachii on this sketch (153 Drum) I tried to make basilar areolation and I think is akin to O. dilatatum O. Brachii fide Sullin. & O. coarctatum Bry Eur 7 227 –

– O. americanum a var. O. crispum I consider right! I did not say that O. crispum & O. Brachii were the same I only remarked the the O. Brachii were from No 153 O. crispum of Drummond – I think the two species distinct

– O. Macounii I have added areolation at base

and a magnified peristome at lower right corner of the slip — I ~~had not a~~ do not recollect of having O. Macomii from Austin — this specimen came from Prof Marcou unlabelled It may not be Austin's [illegible]

— (186) Orthotrichum leiocarpum see peristome and areolation to the sketch and remarks on the back of ~~the col~~ slate

— 8.1054 — Orth. (crispum?) I have made a hasty sketch of this could not get an inner peristome the outer one is beginning to operculate operculum is ~~now~~ blunt.

— (1184) — Orth. dilatatum — Bear Meadow — on the back of the slip I have some remarks — I believe I saw ~~not~~ a single inner cilia but not positive

I sullivant in his copy of ~~Bry Boreal~~ Bry. Europ has by pencil crossed O. coarctatum & written O. Brunchii also. crossed O. dilatatum and written O. Brunchii var — see Schp Syn. 2d ed. p. 303 for remarks on this species — I return packet

— Orthotrichum — Prof W. Yonah Sept I think I found a single inner cilia in the peristome cut up I did not detect any cilia in others — I did see that the outer peristome was beginning to

Sullivant (as above) writes in letter to Prof. of Bry Eur — "that the true O. coarctatum Pal Beau. is the O. Sudovii Schp" and is the proper name see Flora Cryp. p. 27 also Wilson & Orton all of your specimen

— Orthotrichum obtusifolium (Regnt Dist. stain) on sketch I have 1st sketch your plant from Adirondacks 1863 I observe a forked nerve in many of the leaves — My specimen from Poplar trees Phila 3 is next not so many forked nerves — and the 3d is from Poplars at Cambridge Mass I consider all of them O. obtusifolium

I doubt our having O. Rogeri unless I have a specimen from from Franconia — which be barren I pass

— O. inflexum C.M. I refer you C.M. syn. p. 690 for this sp made from Drummond No 157 — I thought I might have it from Prof Macoun Canada but I could not observe that it had comport characteristic differences

I loan you Mr Sullivant's Orthotricha from N.P. Jones for perusal etc to be returned — I saw a box in the Sullivant herbarium which I sent him all as Jones had in his list — If you desire any information about it I will try to furnish it —

I find I have overlooked until now your favor of 1 mar & 15/81 it got hid under some papers — —

Orthotrichum rupestre sp from W & R. I referred to my set of them collected and find O. rupestre is erased for O. sprucei so reference to that locality & sketch you will omit for O rupestre I will not examine

(76) O. pulchellum Oregon Hall — and Dr Morris Specimen from Oregon

I do not recall specimens of Orthotricha which you say you sent me from Hall and decidedly Austin as O pallens var brevialatum the Hall specimen is O. pulchellum — I do not know what to sketch of Hall's to see how they differ from O strangulatum

O. tenellum W & R I will also sketch for you Wolf & Dr Rothrock were the Botanists of Lieut Wheeler Expd Explor. 100th Meridian

I know some other Orthotricha to sketch —

Mr Watson collected a number of Orthotricha which I have not had time to examine yet

— Rhychomitrium hypnoides I submit all the material & sketches about this species ~~to~~ to be returned When I sent the specimens of the species represented in our article in Acad Nat Sci. to Austin I did not send this sp to him as I had it not to spare so he wrote to Hall for it and as Hall did consider that all the three or four specimens sent by him were identical I doubt not he sent to Austin Pl. in common and so he criticized that

The density and greenness was specified by Sullivant to be a specimen from Gilbertsville Mass. Hampshire Co. in the peculiar dark green color — H. hirsutum Hedw.

Yours old sincere friend

Thos. P. James

— Zygodon Cyathicarpus I have amended sketch and return it

— Didymodon cæspitosus — the first on slip is D. cæspitosus drawn from a mutty pl for Sull: herbm which has more prominent serrations on the upper part of leaf than the foreign sketched plants but like Z. californicus the areolation at base of leaves not like Z. californicus

— Z. cyathicarpus Tasmania is the other sketch — serrations to the leaves is not discernable the areolation at the base of the leaves is not so fine and narrow as Z cæspitosus —

— Z. cyathicarpus from the Andes S. A (Spruce) which does not show serrations — the areolation at the base of the leaves quite slender & delicate — this plant is monœcious

~~I have w~~ O. Hainsiana Aust I fear we will be unable to get —

Mosses from Mr Fitzgerald

— 14 Barbula cæspitosa

— 6 Tetradontium australe

— 81 — Hookeria varians

— 81 b same with broader leaves

— 81 Macromitrium sp sketch with broad ovate

— 811 I cannot find its likeness among the specimens of Mitten's report so I have made a full sketch it has no peristome & strongly ribbed capsule having calyptra

Cambridge April 25 1887

My dear Mr Sullivant

I go back to several letters with my report — ~~but~~

— Orthotrichum superbum is O. shawianum of Wolf & Rothrock

— O. ~~stuartii~~ — I find now is O. shawianum Lesquereux

— 76 O. pulchellum organ Hall I have sketched for your eye —

— No. 1 Orthotrichum Oregon & Rivers I have sketched from your packet & Wolf & Rothrock were the botanists to . . . . . .

— O. pulchellum = O. Colensoanum is sketched from a packet from Sullivant on the back of the slip I have copied Sullivant's remarks on his copy of Mitten's report on 49° parallel of latitude exhibiting Mitten's errors = what are borne out in the sketch I send a specimen — you will observe the great variation in the hair

— + Ulota Cold harbor Alaska Harrington

I submit a sketch with a specimen

— Or. pulchellum var rubiginosum ~~sketched from~~ A ~~sket~~ plant ~~& too~~ from Sullivant Habar — ~~so~~ labelled by Mr Sullivan

— Ulota — Owen Sound Ontario Roy

I submit sketch & plants

— 76 Ulota Hainsiana Aust. I at his request sent all plants to Austin and

cannot amend the sketch which return – We may get spr of Rare of Walls plant

— No 4 Thuidium – from Sandwich see full sketch –

I returned a small specimen of this plant had two capsules such nat size – see sketch & found sparingly its inflorescence – the female organs on a separate plant (no ♂ gemma) male organs separate found no paraphyses – neither organs found out – see sketch

The capsules bent down – see note the peristome perfect with cilia & cilioli – the perichaet white upper portion serrate with indistinct nerve – the stem leaves have short nerves (one forked) serrated papillose apex – the branch leaves have ~~[illegible]~~ short nerves the male gemma have nerveless perigonial leaves – archegonia have paraphyses – I do not find it described in Mitten & report in Ann. Lin. Soc 12. vol which I send to you – I have not read Muller – I can't P.M. furnished the sketches –

— 8. Hypnum – I have sketched the period which I submit — Do you not think it p. sp –

— 60 Barbula amplexa right I return sketch

— 55 Barbula — I have not a specimen of B Jonesiana from Dr to compare with it – papillose areolation close and obscure some leaves have a small apiculus leaves not reflexed – not revolute rather seemingly involute at base – Costa brownish the punctiform whitish – pedicel twisted from right to left –

— Thamnium is Mnium Menziesii

— 65 Antoneum being barren no thing can be certain about it

— 51 Rhabdoweisia Schisti – It has such feeble crenulated margin I doubt it – areolation is quite papillose from apex to mid way but not at base could not determine whether both surfaces of the leaves were papillose

— Ptychomitrium pygmaeum I sent all of this specimen sketches of Schimper my own plants & all I had of it in my last letter which must have come to you as you received other specimens which I sent in that letter 15. Apl. the whole tied together with a thread – You surely have passed it by look it up if you please as it is all I had of it – the packet from Austin has nought to do with it

— Zygodon Californicus decided to I have amended my sketch of this & with reminiscences on back of slip – there are dotted cells which show thus papillose It is dioicous I return sketch.

(19) Leskea macrophylla — see Mitten — in Jour. Lin Soc 12 vol p. 568 —
I return all specimens in the packets except scraps of the micromeltum & Leskea —

Cambridge April 26 1881

Orthotrichum San Marcos Texas
from a packet in Sull Herb — C. Wright 1849
Orthotrichum San Marcos Texas C Wright 1849
There appear from within — One as far as the foliage is concerned is O diaphanum — The other appears to be O Canum Mitt.
The Comal & perichaetial leaves in the 1st — has a long serrated diaphanous point In the other the point is nearly entire — The calyptra in both is entirely without ramenta or hairs — Capsule not exp in either without the capsules it is difficult to distinguish of these two forms — The first I think is the true diaphanum
The second appears to be Mitten's O. canum with a smooth calyptra
If as Schwaegrichen says (other authors however deny it) O diaphanum occurs with Scilia in the peristome, as is the case in Mittens O. canum then all may be forms of O diaphanum
I looked into the contents of the packet first four pkts & I find the two plants mixed of really distinct — In a number of clusters I found some with leaves with pound nearly entire also in the very small cluster plants

with the long serrated distinct point
They are one & the same – D. canon is a variety
as seen by Miller see his remarks below the
description. – See Br. Jor p. 26
He seems to have noticed the
The packet from Salt Creek is of one locality
only – & the form are grown so together as to be
considered one species

Marsonitrium Donnellii – Austin

Austin sent me a small sample of his Mac. Donnellii and
on examination I pronounced it to be M. didymodon
He afterwards sent a better specimen which I called
Mac. rhabdocarpum Mitt. and I sent him plenty of ~~condia~~ for him
to compare. So Austin published it ~~under his~~ under M. rhabdocarpum abandoning Mac Donnellii – In the mean time
I made a small sketch of his M. Donnellii and
the plenty to you calling it M. didymodon now
the Spt. having ribbed and colored mouth capsule in
~~notes~~ I do not find in the packet sent to you

4 a sketch of the same species from an Indian specy for comparison

— I also send the packet of the same specy from Austin which he sent to me as sphacelaria congladey "only a little of this found by smack" — I replied to him telling him it was Calymperes Richardi and at the same time sent him a specy of my Indian sp for comparison — notwithstanding he has published it under Calymperes Donnellii in the Botanical Gazette 4. p. 150. — you have my copy of this no 4. sent some time ago —

— Calymperes deciforme Calosa Florida
This came to me from Austin and Mar 78.
is so labelled by him —

I have made the sketch from these specimens on a number of the upper leaves varly about midway a cluster of articulated filiments remarkable — I could not observe the strong scabrous points in the upper portion of the nerve — the leaves are finely papillose — but not margined by a yellow margin on any under my eye yet from the form & aspect I think it is right

— Encalypta Macounii early Lewarts Lake Mountain, Macoun June 21 1875.
I sent to Prof Macoun for identical austin specy from which I have sketched E Macounii and E. Selwynii —

E Macounii There was not a good mature capsule in his specimen but I did the best I could & think I have succeeded — (I had named it E ciliata from the very imperfect specimen sent me long ago) It is monocious (carpidia bring & marginally papillose) speculoose & single and shorter but resembling that of E apophysata Bry. Eur. T 201 — of an orange red color — pedicel not papillose or papillae exceedingly sparse only one or two to a pedicel I had only one or two ~~[illegible]~~ capsules and they were immature on one I observed an apophysis — Operculum has a red basal border you will observe the lanceolate leaves

1.

Cambridge June 1st 2nd 1881

My dear Mr Sullivant

I send material to you now at home or soon will be at Columbus —

Did you find the panel containing all I have concerning Ptychomitrium pygmaeum which I sent to you with other mosses on the 15th April 1881 if it is lost — then all about it is lost — please inform me if you have found it

I enquired of Dr Braithwaite of London about a Mittenia — he informs me that Lindberg has ~~[illegible]~~ genus Mittenia = Miniopsis Mitt. for a New Zealand Moss — there is a previous genus of Hepaticae of the latter name (Miniopsis) hence Lindberg named the moss Mittenia

I have purchased the Sphagnaceae or Peat-mosses of Europe & North America — Braithwaite of the London publishers it ~~[illegible]~~ is a very exhaustive work on that tribe — and which I will loan you — would you like to have your manuscript on the Sphagna returned — I have only glanced at it — my whole time is absorbed with studying mosses and examining — and examining mosses — nothing else I have not had leisure to peruse carefully your Sphagna — you may wish to know what Braithwaite has published —

I have also bought of Dr Braithwaite his B parts of his British Moss-Flora (this N. B. published on his own account) — I have parts — I — Fam. Andreaceae — P. II Fam II — Barbeuniaceae & Fam. III. Georgiaceae — P. III. — Fam IV. Polytrichaceae — P. IV. Fam. V Fissidentaceae. and will have the other parts as issued —

all of these will be serviceable in your revision of your work which I understand you purpose doing

D Macromitrium Drege — M. Sullivantii

No 193. Sull & Lesq. mus. exsicat.

— F. Macromitrium M. S. Fitzgerald Florida

These two species I have sketched on the same slip — marking each D & F. —

D. not very good specimens were mixed with Lescuraea I made the best sketch that I could from what I saw — the calyptra was quite hairy — capsule not all ribbed no peristome found on the plant perichaetial leaves small & of the form of two on sketch ~~the color of the plant is a dark green or leaden~~ the other leaves of the stem are small and seemingly excavated below the operculum long subulate and it is monoicous the plant is a dark green or leaden color

oval lanceolate areolation somewhat larger than the F leaves — papillose —

F. I sent back to you most of this plant with a sketch from a single stem I sketched this — It has quite a hairy calyptra a large and strongly ribbed capsule — No peristome operculum bluntly conic — perichaetial leaves large thin areolation oblong-lanceolate — stem leaves ovate lanceolate acuminate areolation small not so dense minutely papillose nerve simple transparent — the plant of a yellow color distinct from D. could not detect a plant. I have made a sketch of the two plants alternate for comparison — of usual high power on the back of 2/3 Rewa

— Macromitrium Donnellii Austin I send all the material from Mr Austin which I preserve and a sketch that I had made which I had considered as Mac. Didymodon with some specimens — ~~I have now made another sketch Mac. Donnellii Austin which see~~ I ~~did~~ do not find the characters of M. Didymodon in this more specimens on the slip of bark — I could not from ~~Mr~~ Mr Didymodon in it but thought I decided Mr Rhabdocarpum and so informed Austin and so he gave it Mr Donnellii & published it as M. Rhabdocarpum — ~~I have now made a sketch of Mac. Donnellii from his last parcel which differs by a ribbed capsule, not ribbed nerve, oblong lanceolate — no colored nerve~~ de.

And for comparison I have sketched and loan a specimen of Macromitrium Rhabdocarpum from Mirador Mexico Dr Bourgeau & which I think came to me from Wm Wilson — I have none of Spruce's M. rhabdocarpum

X And mixed with Austin's M. Donnellii I picked out another distinct species which I have sketched & send with all the specimens — under name

— Macromitrium alternatum Sanfo and which I find identical with a Spruce specimen vide sketch &c

X Macrometrium Donnellii I have now sketched this from Austin's second parcel which see the calyptra is sparsely hairy — capsule smooth when moist when dry feebly striate — a peristome of 16 teeth granular — operculum long subulate perichaetial leaves thin lanceolate — broadly ovate acuminate stem leaves linear lanceolate apiculate nerve somewhat transparent areolation colorless and obscure above long narrow below papillose — Now as Austin has not described M. Donnellii ~~and~~ named it Mr Rhabdocarpum should his name M Donnellii be given to this plant —

— Macromitrium microrifolium

on Palm trunks St John River Florida C. H. Fitzgerald May 1881.

I send all the original specimen — and a sketch which corresponds with M microrifolium and is identical No inflorescence even barren — ~~it is~~ in form of leaf sketch is more obscure in the upper areolation ~~but~~ owing to the fresh state somewhat stronger in the long cells of the marginal border it is identical with Wright's No 50 Cuban plants — See Mitten in Jour. Lin Soc. XII p. 202. — C Mull syn 1. p 746 —

— is this a Schlotheimia? Everyday I & S

vide sketch it is barren except a broken pedicel — it differs somewhat from a Schlotheimia —

— Syrrhopodon crispus Aust. Jacksonville Florida

vide sketches with all the material that came with it — I & S. Feby. 1877

I think it is a Calymperes but have not a specimen of its like

106 Calymperes Richardi Florida Dr Harber see sketch ~~of this specimen and same from I. Dorrich~~ I have but one fruit figured on the back in calyptra and by its side is drawn

6 · 7

pedicelled of varied aspect in some authenticated specimens paraphyses abundant & 3 forms

— Mecsia Macrocnii Aust. on clay ground around boiling springs opposite Hudson's Hope Oct. 1879 Macoun

I copy the label that is on Prof. Mr. Mounted sp.
" Amblyodon Flumanagii Austin "
Macounii austin"
" Hab. on clay ground around boiling springs opposite Hudson's Hope Oct. 23. '79
" Mecsia Macrocnii austin"

You will observe by the label that Austin had reported it at different times under three different names —

I have made the best sketch I could of the imperfect plant — it is meagre the capsule is not so upright as in amblyodon the seta long no entire peristome — the outer teeth are good but the processes are fragmentary whether much longer I could not detect — the perichaetial leaves are small the stem leaves are light yellowish (not green as in amblyodon) nerve stout below areolation open very open M. marginata of long small cells I could not find male gemmae — archegonia & paraphyses few —

Whilst writing the above two large parcels or masses came to hand from Mr. C. H. Fitzgerald of Baltimore one of his collections of North Carolina the other his Florida collections — In his letter announcing them was a Macromitrium quite distinct from his sent to you & different from any of those reported above — this plant I will sketch and send at once — I should not be surprised at finding many novelties when I examine the collections

In going through Walter's recent large out Mr. Amaral Mosses I have lain aside other novelties of different genera — which will be taken up as we pass onward

Cambridge June 6th 1881

My dear Mr Lesquereux

I have sketched the Macromitrium rec'd from Mr Fitzgerald just as I was sending my last to you

— Macromitrium — — Florida C. H. Fitzgerald 1881

See sketch — I could not get an operculum all capsules were old except the one drawn on the back of the slip under 2/3 de asual power — the calyptra is young and the capsule very immature — ~~cup~~ no peristome (capsules all old) yet I consider it gymnostomous (no fragments of teeth) mouth of cups is reddish and base of cups reddish — the perichaetial leaves are broader than and larger than those lower which are narrow or and have a plication in some and a narrow margin formed of long narrow row of cells — nerve short of apex mucro shorter — the plication marked in some — areolation round small above below more open long slender to round obscure above —

Male gemma minute a cluster is seen attached to a leaf I think it monoicous yet not positive somewhat uncertain

I have sketched others for comparison & the determination of our plant

— 50 Macromitrium microphylla N. & G. Cuba Wright

Side sketch of leaves only; no good mature capsules — the perichaetial leaves differ from our plt. all much larger, so also of the specimen from Wright's collecting — the mucro longer — the marginated border and areolation much the same

— Macromitrium microphyllum N. & G. Barbadoes Parker Leg.

Observe the leaves of this sketch undulate & peculiar — margin and areolation similar — after drawing this I took the only two capsulate plants that were in the specimen — and have drawn — two capsules one on each side of slip — these capsules are large as peristome — reddish mouth and darker at base not ribbed — leaves large, plication seen, no marginated border areolation round above below narrow to rounded not so large as preceding and back of leaf papillose — now I think these two capsulate plants are some distinct species

Please compare & decide whether M. microphyllum

I have no specimens of Mac. brevipes nor M. microcarpum ....

I sent in the last consignment ~~cap~~ all of a specimen from Mr Fitzgerald — barren yet I thought it was M. microphyllum I have none of it to compare it with this you have its sketch —

I am looking into Fitzgerald's collection

I hope you are well

Your old friend Sincerely
Tho. P. James

Cambridge June 11 1881

My dear Mr Lesquereux —

In one of your letters you has mentioned — you had not seen Plychomitrium pyriforme & acuminatum which I had sent — and two letters from you had been rec'd in neither of which did you say they you had them — I ask you if you had them that I might (if I can) take some measures thro Mr. Hall to replace — but as you have all right I do not wish them returned until you are done with them in revision with regard to No 268 Physcomitrium (Gaba) I have sketched it now

— 268 Physcomitrium pyriforme Gaba on the back of slip you will see a stem with rooting stems and ♂ stems or branches under 2/3 power — I have no good capsules — nor necessary in this instance — The front of slip has three leaves fully drawn and a stem with branches ~~with fructus~~ & male branches or stems on same stem (with fruit) & which shows the nerve not excurrent but up to the apex

— Physcomitrium pyriforme Var as determined formerly I Donnell Smith. Florida — No 141 Feb 1876 on back slip two stems with ♂ branches — 2/3 power and on front four leaves high power & a male branch 2/3 p. by comparison you will see but little difference — the nerves of the latter not quite so near the apex in other respects identical — To investigate further I have drawn hastily four leaves of — I return packet intact

— 2?? Ph: pyriforme of Sul & Sey Mus: Exsicc Ecdo You will see nerve as near the apex — the serrature a little less prominent — only difference — and

— Physcom: pyriforme Camden N.J. Pl. the nerve in like position also serratures — Now: if S & L. plants are true then the others — 268 & No 14 are about identical

But in looking at B & S. T. the nerve is not so near apex —

— June 2d 1881 — 5

and the stem leaves I have worn for only two, the recurved & incurved margin is given

the male gemma with archegonia & leaves & paraphyses

— Encalypta Selwyni Aust. Dec Mountain south of little slave lake Macoun

It is monoicous — calyptra fringed and very minutely papillose

I am inclined to think there are two species and with that idea I have numbered them No 1 & No 2 —

No 1. has calyptra fringed very minutely papillose — see sketch — capsule striate and so prominently as in B. Thalocarpa — you were only two capsules of this No. the perichetial leaves small and with a long pilifrous point, stem leaves 3 drawn with pilifer and with the appearance of a worn off pilifer nerve strong the areolation roundish and very obscure in the upper portion and basal areolation delicate and peculiar — yellowish tint and a reddish band between the lower & upper areolation — operculum long smooth — the peristome with long gramine pale linear, cilia short, lip than half the length of the teeth that portion above the wide membrane — the texture of the peristome like E procera Br. Jan T. 205. annulus simple & gemma delicate and hyalin light red & yellowish

No 2. no calyptra seen on the capsule — capsules stleptocarpus peristome imperfect dark red — stem leaves 2 drawn did not show pilifrous point, areolation like No 1 male gemma stouter leaves stouter and hinda quite dark —

It may be however that the two forms No 1 & No 2 belong to one & the same species — and the difference are immaterial altho Prof M sent his own herbarium mounted specimens I did not like to cut up much of the specimen.

— 48. E. streptocarpa Drummond named now by Mitten

Encalypta longipes sketch made from drund specimens unquestionably monoicous — calyptra fringed very minutely papillose peristome under usual high power but not so highly specified the outer teeth slender some nodulous irregular in length — cilia short slender, membrane ~~short~~ capsule strep tocarpous not so marked as in B & S. T 204. operculum conical straw — stouter (annulus not seen) the 3 perichetial leaves minutely in size broad ovate & lanceolate & pilifrous — 3 stem leaves shortly pilifrous nerve strong basile papillose areolation rounded above & obscure delicate & peculiar at base — & gemmae

Continuation of same date June 11th

I have this moment your postal card of 9th inst.
The macromitium — is so distinct from
M. Dregei = M Sullivantii that it surely sp. nov.
and might be ~~called~~ named M. Fitzgeraldii —
(Mr. F. on the 8th was at Cayanoon Va but I think he
will return soon to 56 Franklin Str. Baltimore)
another Macromitium distinct from the M.
Fitzgeraldi came in a letter to me and which
I have sketched with others nearly allied to it
but yet so different — there are two species by Mitten
which come in same section which I have no
recently — I may be some in a small — See my last letter —
With regard to the Mac. Donnellii Austin — Mr
Austin has not described it but has named it
M Rhabdocarpum if it be sp. nov. which I think
it is Austin would not be entitled to the naming
but if we name it it ought not to be M Donnellii
a reference in our designation should be
made "M Rhabdocarpum — I D S. Lg —
I will write to Mr F for the distinct localities
of the Macromitia
I have three packets of Rhyncyrefome from
Mr F

I send a beautiful
— Hypnum Fitzgeraldi which I do
not recognize please set and name
it & return it to me.

Your old friend sincerely
Tho. P. James

Cambridge June 16 1881

My dear Mr Lesquereux

I have yours of the 10th inst

Look into ~~Mettin~~ my copy (but you sometime ago) of Mettin's Enumeration of the Mas. aust — under the four. div. Soc 12th Vol — ~~for Mac~~ Sect 2 No 7. page 199 and for description at page 199 No 7 — for Macromitrium rhabdocarpum Mitt and same Sect 1 for description on page 201 No 15. for M. dedymodon

~~The~~ You have all the material sketches original plants in ~~the~~ the packet of Austin — also the Fitzgerald packet from Florida so that I cannot make ~~any~~ other sketches, which I thought they were full I ~~have~~ cannot call to mind any thing more than I have already furnished about them I have ~~sketched~~ sent sketches etc of Macromitrium microrifolia for comparison than are in same section on Mettin ~~Sections~~ two or more which I have no examples — at P. 202 Mettin. —

I asked you if Austin was entitled to the naming of M. Donnellii (which he did not publish) and which he did give M. ~~macro~~ rhabdocarpum Mitt — inferring that the plant was a M. sp. and I thought Austin's name should not be applied to it — but if you have positively made it M. rhabdocarpum the matter ~~ends~~ ends — — (vide where M. rhabdocarpum is found above)

As to the Fitzgerald Mac. there is no necessity of naming a sp. nov for Mr Fitzgerald as you make him M. microrifolium — my remark that the areolation was long — slender & round in lower part of leaf — I meant that at ~~the~~ & near the margin — linear — then round and near the nerve somewhat rectangular vid sketch — I thought I had made all the characters fully out —

× "Sporhopodon Enterprise Florida ~~P.O.~~ Daniel B Smith" Dec (1863) is Trichostomum flavo-virens

~~Trichodon gymnos~~ You have all the material — sketches: plants etc from Austin ~~which~~ is a Calypogeia — but what sp. ? You will find this genus & sp in Mettin Jour Lin Soc

× Macromitrium attenuatum Hampe Mirador Mexico Dr Sartorius

I have sketched ~~from~~ a specimen in my herb so labelled — but in reading description in Mettin p. 212 No 56 I doubt the correctness of the naming — I have none of the Florida plant to compare — you can compare the present sketch with it — but as the Mirador plant is not right — attenuatum it follows our Florida plant is not the N. attenuatum Hampe —

— Physcomitrium

I have sketched another Florida Physcomitrium collected by Daniel B. Smith 1860 which I have fully sketched and sent — the characteristic feature is the strongly serrated leaves — the other thing peculiar the form of capsule the stronger nerve at ~~one~~ heaven border of the cells — I find differences ~~in the~~ among the plants so I have sketched them No 1. has a long pedicel a large differently formed capsule leaves No 1 ~~not~~ slightly different No 2. has shorter pedicel & capsule leaves scarcely different No 3 the pedicel is curved several plants of this all have serrate ~~to the apex~~ & ~~exserted~~ areolation is quadrate to oblong — rectangular below —

— Physcomitrium cuneifolium Coopers Rock Camden N.J. T.S.L. leg 1864 — Sketch all under 2/3 usual power — I send a packet of the plants for yourself to keep —

I refer you to Mettin Jour Lin Soc page 240 where you will see that he makes Reinwardtia Sullivantii a synonym of his P. cuneifolium — and narrates some trifling differences Now as Sullivant's name has priority and his plant is not identical why should not Sullivant's name remain and his also if specifically distinct and if not distinct sp: then it is a variety of P. cuneifolium

— No 249 Bryum dealbatum Dicks" Drum. Amblystegium dealbatum I have made a hurried sketch and I consider it the same as M. Macounii Lesq I return M. Macounii Aust —

○ — Sporhopodon Enterprise Florida Dan'l B Smith

— Hypnum — Do you recognize that beautiful Hypnum from Florida Fitzgerald — if may please return it I cannot find it let me know

Yours truly

Your old friend

Jno. P. James

Cambridge July 1st 1887

My dear Mr Lesquereux.

Yours of the 29th ult has just come to hand. Mails are often provokingly slow in progress – Thanks for the extended synonymy: I regret I am truly sorry that I adopted Prof Schimper's suggestion of pygmaeum for the Physcomitrium it was thoughtless on my part altho a distinct genus but so similar in the spelling and pronouncing will lead to confusion, I do not know of a remedy unless one of them is pronounced synonymous

I have this p. m. sketched Physcomitrium pygmaeum – drawing every scrap that I have left of it and send all with the best I could sketch, I could not get a perfect leaf you have all the material of the plant herewith sent

I had sent when it came to me most of it the best of it to Mr Sullivant some good specimens and calling his attention to the plant as a diminutive plant & new? And he so pronounced it and furnished the following description

Physcomitrium pygmaeum James, see Watson's Report –

I do not think I have sketched this species before the material for such is very limited indeed in my hands – I have cleaned the whole of my stock out and you see what I had to draw from Mr Sullivant has had very much more & it may be the plants he described from are in his herbarium

I sent in my last the 268 Phys. umbonatum Barbula and by the sketch etc. had now brought it nd umbonatum

You ~~have~~ say we have not any thing of Physcomitrium pygmaeum — I did send you all the material I had & which you have. and if you would have me make sketches or otherwise please send that to me

I submitted sketches of several Pap. pyriformes in my last —

I have found novelties among a few small examples from Arizona de Leon which I have sketched and they will come up as we progress

I did not get any very marked specimens among Fitzgerald's Moss — It took me days to examine them — I have much of Watson's Brit. And. to ~~examine~~ investigate & much other material lain aside to keep me month's at work

Yours very truly
Tho. P. Jones

Physcomitrium

I find in Sullivant's Herbarium a packet "Drummond's name "latifolium" showed to contained W.S.S." — Physcomitr. ~~[illegible]~~ into Mss in Lett Jan 1870 — These specimens were found among those of Ph. pyriformes No 234 of S & L. Mus. Exsic 3rd Ed. This is 16 Gymnostomum latifolium No sp in Drum Mus. Brit. Mus. (& ~~is not present~~ Ochi - has it - in his Physcomitr. = accumulatum) — It is fully described & now if it is a N. sp. and named on Drum as such why not retain it and not take Ph. hians Lesq — it has priority and by rules should stand) —

Drum Mus. Sorich states — Sull: remarks on Gymnos. pyriforme var 3.

Sp 24 — Physcomitrium — Sp. nov.? pusillum foliis oblongo-lanceolatis erectis vix concavis continuo costatis

I did not get a diagnosis from Müller when he gave me the specimen of Physcomitrium turbinatum. I did sketch this sp and sent it to you sometime ago — I send specimens of it after my return from Germany April 1879. I would now make another sketch but find in my packet from Müller no capsule — late plant. If you would have one have such in the paper I sent you & would have me sketch from it send it to me

I have now added a sketch of
— 6 Physcomitrium spathulatum Mull. Cuba Wright
= Phys. capuliferum Mitt — Jour Linn Soc p. 242 —
by reference to this you will learn wherein it differs from Müller's P. spathulatum — The areolation of the leaf is smaller than P. pyriforme the base is more contracted = spathulate in a measure the nerve is at the apex & near it — I have drawn for capsules as Mitt makes his sp. = capuliferum
I have sketched this for comparison, it is Cuba.
— Now, which you are consulting mitten. at 240 page you will observe that Mitt makes P. Calense (Mitt) of Sullivant's Pl. Musci No. 7. Now whether the Cuba plant differs from the No. and Pl. I do not know —
Mitt says its leaves are broader — the curved apiculus & the calyptra shorter & smaller — Now could not climate make this difference and a new species succeed for — Should we not make Mitten's P. Calense a synonym of
I have just seen in Schimper Synop. 2 ed that he has a Pyramidula Ptychomitrium and does not make a syn. of Phy. ptychomitrium but refers to P. 298 Phy. ptychomitrium. Do you intend to follow Schimper & have a new genus — Pyramidula?
If any thing more is desired about Physcomitrium please signify it & I will do it. After this good comes Entodon Otten Fauceria I have sent a sketch of a Fauceria — a very small specimen just rec'd by Fitzgerald which I thought might be new but now think it is Fauceria Ven. Olinda sp. sect — Mus. of a Fun: convolutum Hedw which I sketched & sent some time since
I have just rec'd from Fitzgerald from No Carolina —
— No 109 Catharinea angustata which I have sketched & send if it is that species this is a peculiar one — I have arranged all of Fitzgerald's collection — the new plants will appear in order — I am nearly through with Sullivant's Mt. Musci a very large lot I will soon finish it.
I would be greatly obliged for a specimen of 629 Entodon chrysimanus & structure & fol. diagnosis — Check etc of your Enumeration. Very truly yours Alex Jay.

Cambridge July 7 1881

My dear Mr Lesquereux

I wrote to you on the 1st inst. sending what I then could about the Physcomitrium hygrometicum — I knew that I had on a former occasion furnished my material of that species I could not find the packet among my reserved plants & I made the best sketch I could do. It now seems that I had considered the species as established & I had put the packet away in my herbarium where in going for specimens just now I found it and now send it to you. — I had gotten from Sullivant his sketch from which I had traced his drafts & I now add that too —

"— 1 Physcomitrium hians! Det. Fields Columbus 24/4/7 —
I have sketched 3 forms from your packet (1.) & sized & marking them each a-b-c. on the back of the slide 2/3 power — front usual high power leaves of usual form of Ph. pyriforme — nerve at & near the apex — the 3 forms do not vary greatly except in size — I do not see variety I have since added in the corner an operculum & capsule wall (vid. onward)
"No 2. Phys. hyans (hians) Det. Please settle it."
I have sketched forms a-b — & 2 capsules 2/3 in power & the high power — a — the form of the leaf in its acuminate point nerve to the apex — b — main leaves acuminate can circulate or incurved in upper portion — I hardly think it hians

— 2 Phys. pyriforme Sull. & Lesq. Mus. Exsic 2 Ed.
I have 3 forms variant in size — 2/3 power high power a-b large broad leaves of sp. nerve short of the apex — c. has narrower leaves — some incurved & undulate — not a mature capsule to draw & no Ph. hians in the packet
— Phys. pyriforme Burlington N.J. 28 Apr. 1872 sketched under 2/3 no. power — (No capsule mature enough to draw operculum & caps. wall) It is right!
— Phys. hians? Philad. May 1876 I have sketched & additional a mature capsule & operculum shewing with in leaves etc it to be hians or latifolium.

A. Physomitrium hians Iowa Prof. Bessey Nov. 1877 – By the sketch it appears to be hians – or latifolium – under 2/3" on flower & high power capsules are immature & cannot sketch well to

B & C. Physomitrium – Central Iowa Prof Bessey

The sketches show Ph. hians 2/3" high power a small plant with large capsule – not mature enough capsules & more truncate than usual –

Phys: latifolium (hians?) Colorado 1873 –

I selected 3 ~~forms~~ var. & drawn 2/3" power – a small plant leaves somewhat broad, nerve near the apex. B. has narrower & canaliculate leaves – C. broad leaves.

At Sullivant's herbarium – I borrowed Lesq's letter 8 Jan 1870 I send it – to be returned

I got a packet labelled 5th Drummond's name "latifolium should be retained W. S."

D – Phys: hians Lesq MSS. in litt Jan 1870 & written thereon "These specimens were found among those of S & L. Mus: Exsic: 2d Ed." I sketched from one of the plants under 2/3" power also high power, showing a negro capsule and a fine closed operculum (only one there) & showing the beautiful marginal cells – the broad leaves nerved to the apex – a more marked species – I have since added sketches under the highest power on the same slip – an operculum showing the fine margin with a dark band also the form of the cells above the margin – also at the over a leaf the capsule a section of the wall with the narrow annular cells at edge, and cells below with negro dark outer wall – this seems a decided species. it was taken from a packet of S & L Mus. Exsic. by Mr. Sullivant – There is none such in my packet of S & L Mus: Exsic. now in your two packets, sent & selected and now returned precisely similar to it – see the my Philad. specimen comes near to it. additional capsule wall and operculum drawn on it – the operculum was from a less mature plant – see the the additional capsule wall & operculum drawn on the slip the operculum was from a less mature plant

On your No. 1 sketch I have added sketch of outer wall having cleaned it of a thick inner coating so that the outside wall exhibits the annular cells numerous series

and shows it to be pyriformed of such characters are radiate – the sketch of the operculum has not the dark band observable in Sullivant's taken from S & L Mus Exsic – And now in looking again at the sketch of the annular cells I note the upper & first series are quite narrow and so approaches the character of hians

No 16 Gymnostomum latifolium nov. sp. Drummond. Mus. Br. Am. which is fully described as a new species, and Sullivant says his name (latifolium) should remain – Now as this has priority I do not know why Lindb's name hians should take its place – could we not appropriately have it = latifolium – Schimper in his review of Drum. makes this Ph acuminatum

Of Drummond's Mosses of the Southern States –

24 Gymnostomum pyriforme var. B N. Orleans

I have sketched this from a specimen in my set It is a small plant – B specimen has broad leaves nerved to the apex and a round ish capsule – I have copied Sullivant's remarks from his set of Drum. South Mus to which I refer you. I have since sketched an operculum & a section of the capsule wall showing the annular cells & the marking also of the operculum – I think this is Ph. latifolium (hians)

No 25 Gymnostomum tortipes? Apalachicola Drum. – see sketch on the back of the above (24) It is a long slender plant see specimens capsules differ a little – the leaves are long narrow ligulate – nerved at or near the apex

Sullivant has written on the Drum mountain (25) viz – "This very probably is a good species. The transverse oblong cells at the mouth of the capsule are disposed in 3 or 4 rows only (not 12–15 as in true Ph pyriformis) The capsule wall is firmer the leaves ligulate etc etc"

Mr S. has a sketch of this – and written on it – "25 Gymn. tortipes a var. of Phys: pyriformis" I submit all to you.

Cambridge Aug 2d 1881

My dear Mr Lesquereux

During my absence of nearly three whole days to the Sea coast your favor of the 27th July came —

I now have sketched three specimens of the packet of "two fragments" of your former No 1 & 2 on one I mark — A & B to show to which the leaves belong — they appear much the same

The other sketch is of a plant with level or flat operculum with the leaves — which vary from the former — in operculum and leaves and somewhat in the wall cells — and may be varieties of Ph. pyriformis and not Ph. hians as the operculum has not the colored band nor rugose capsule — ~~not~~ nor the two annular wall cells of the capsule

I incline rather to consider them as Phys. acuminatum — having leaves erect spreading ovate-lanceolate acute somewhat concave upper portion incurved (canaliculate partially) Nerve strong and running through capsule smooth rather spherical short necked when dry & old strangulate under the mouth and rows of annular cells more numerous than in hians —

Physcomitrium hians — a species made by Lindberg from a specimen of Sullivant & Sing Mus: Exsicc — and which Sullivant separates from a broken set of L & S Mus. Exs. 1st Edit. Ohio (rarissim) See sketch sent & in letter July 7th There was but one operculum and that sketched which had a colored band whether this band was a character or caused by a partial decay

I have looked into B. Prof Bessey's Central Iowa plants and in some found a very narrow red margin others darker upward but not in a band — one an injured specimen had the red color over a part of it — the annular wall cells were more in number than in P hians — the capsules were regular — My Philad^a specimen has more annular wall cells but in mature capsules the regularity so if P hians is a species these and varieties of Physcomitrium tortipes when Sullivant examined and had it sketched he thought it a good species and so described it — but evidently afterwards he must have observed that C Müll made it a synonyme of P. pyriforme and from the writing an after naming of a variety of P. pyriforme — I am inclined to think Müller had made a hasty examination — And Müll was followed by Schimper — P. tortipes does seem a marked species

C Müller places Drummond's P. latifolium Hk as a synonyme under P. acuminatum p. 115 and he (Müll) has made P. latifolium Brid. synonymous with Entosiodon Templetoni p. 124 could that have influenced Lindberg in the new name hians = P. latifolium as priority —

I cannot find a specimen of Bym turbinatum Mich^x I have looked thro' many of the packages in the Sullivant herbarium without success — I think Michaux plants are in France

— Aug. 5th 1881 —

Yesterday I went again to Sullv. herbarium to ransack for Physcomitria in none of the parcels could I get further physcomitria but in the herbarium proper I got another paper which I send herewith marked by Sullivant & Drummond's name "lilifolium" should be retained Will ele to which please return to be replaced and when at the microscope I was delighted to find in a small manger paper inside two operculas and calyptra which I have sketched & send —

another paper on size of spores to be returned and I also brought home his drawing of Physcomitrium latifolium (Hook) = Phys. hians Lindb — of which I have transferred on tissue paper & send

I am surprised at seeing an annulus a marked one I have never detected an annulus on any Physcomitrium (not on P hians) — no mention of and annulus in Schp nor Müll — there is a remark in Schp syn: p. 373 "annulo pari stomioque vel nullis vel praesentibus"

I also have transferred on tissue paper his sketch of Physcomitrium tortipes —

I venture an opinion that we have in this country

Physcomitrium pyriforme
——— hians
——— acuminatum & probably
——— tortipes ~~& probably~~ ~~and~~ Florida
about a Florida plant I do not say

Please in your next send me a specimen of No. 629 our enumeration = Encalypta streatum and oblige

Yours old friend truly
Jno. P. Sanne

The following has fallen under my recently — viz —

— Brimmia — arizona Lowe

— Racomitrium ? Hot Springs M Montana Watson 80

see sketch it is barren

But you may recognise it

It is remarkably tender & fragile in trying to strip the leaves from the stem I could not get a stem for in every attempt that portion of the stem where the leaf is attached to the stem came off with the leaf

the areolation is similar to ellipticum or probably G. alpina — I regret there are no capsules etc but if you know it it will add to our list — good sized capsules

I hope this will find you recovered from the internal lemon and about house & in fine working order

Condition Your old friend truly

The T Sames

Cambridge Sept 19 1881

My dear Mr Lesquereux

I rec yours of the 10th inst — I have been looking out the Brya Barbariniae etc — but as the past week has been the Pomological Week and we have had so much company and have been called off (the meeting of that society was held in Boston) I have found the following — viz —

— An Webera Drummondii — Sitka Harington I do not find this in Sch — nor Müll. — I only find "257" Br. spinosum (mnium) Drum — which Mr. Schimper in his review of Drummond's Musc. "that it is very different from Mn: spinosum" . . . vide . . . and ends — "we have named it after its discoverer Mn: Drummondii — Wilson also cretins this 257 I had sketched this 257 of Drum — but in looking at my sketch now, I note it is not satisfactory so I purpose making a new sketch & send it to you. And I will also make new sketches of Nos 259 and 266 Drummond & send

— 266 (Sarber's Number) — Bryum Florida It is barren of fruiting plants, but is so interesting that I have sketched it hoping you might recognize it

— Bryum purpurascens Br. Rocky Mts: Bourgeau You have had this sketch and pronounced it right — I send it that you may report it

— Bryum archangelicum Noon Camp W Montana see sketch there cant hardly be a doubt of this species It is hermaphrodite — the antheridia & archegonia are few in number in the same perichaete — the capsule is right — operculum large terminated by a small

papilla – annulus large base dark upper part hyaline – peristome small with 16 articulations of the teeth the processes right arising from a thin membrane all hyaline cilia none – Nerve of the leaf is purple at the base – the areolation as represented at T. 333 Bryol Eur is not that of a Bryum as usually drawn, – but our plant is bryoidal –

10 Bryum Arizona Lowe by

see sketch – It seems to be dioicous – the male stems do appear to be distinct –
From the peculiar form of the capsule I think it is distinct from B. uliginosum – the operculum differs the capsule is horizontal – the peristome is a Bryum not a Cladodium as far as I could make it out from a single capsule (I might dissect the other capsule if you wish) the annulus is revolutable – in the front sketch the leaves are of an unusual form for a bryum narrowed from midway to the base and a clear beautiful areolation – the nerve is short of the apex – see the 3 leaves from an old plant on the back of the slip under 2/3 power where the nerve extends through –
The male plant is seen in the upper angle on the back of slip it and the whole lower portion of the plants were so much entangled with radicles that I could not satisfactorily determine whether they were stems connected with the ♀ or not but I do think the ♂ were separate – as they were sometimes not in the vicinity of ♀
I consider it a new species but if you can make it a described plant say so & if you want further sketching please return the whole with suggestions

73. Bartramia Vancouver Island Marion

See sketch &c

It is distinct from any other I have seen – so minute as to suggest it might be B. exigua sull. of the Wilkes Ex. Exp. this is however only ♂ specimen but please compare
our plant has not so many branches to the stem of the male plant – the leaves are slightly serrated the perigonial leaves have not so attenuated a point as B. marchica and are more minute than that sp. it has a similar peristome the paraphyses of our plant are broad and in short articulations stem leaves small but the perichaetial leaves are quite long and slender points extended –

(20) Bartramia – Bucks Co Pa. T. G. Porter

See sketch – It may be B. radicalis it differs somewhat from that sp.
I have some recollection that Austin reported a B. radicalis var. Porteri – but I do not find it published – Do you know about this Austin plant? –

59 Bartramia Royston Park Owen Sound Ontario, Mrs Roy

see sketch Dioicous
no female plants – I do not recognize it –

(65) Bartramia subulata Alaska Dr Rothrock

See sketch – It appears to my eye to be B. subulata the only capsule is immature – the form of leaves is of that sp. certainly – the section of the old pedicil was unquestionably round – the antheridia & archegonia were found in cutting up of a stem

(13) Bartramia subulata Colorado. Brandegee

See sketch &c on the same slip as the (65) –
it is surely B subulata –

I will send some of the Bryo when I get them sketched

Cambridge Oct 12th 1881

My dear Mr Lesquereux —

I send sketches of some Bryaceæ & remarks which I have worked up & submit —

— Meelichhoferia nitida var. macrocarpa ~~see sketch etc~~ — this plant is "no 74 Mnium macrocarpum n.s. Hab. upon the slate rocks among the Rocky Mountains" Drummond Mus. Am. see sketch etc I have good capsules ~~also~~ & Schimper in his review of Drum — "but capsules too old" — C Mus: 1. p. 235 has macrocarpum ~~m nitida~~ & and a full sketch except ♂ plant.

"263 — Bryum (Webera) nutans var minor" I submit two sketches & specimens taken from my set of Drum.

2 One — with an oval capsule — an annulus and male plant

1 The other a larger drooping longer capsule with a neck (3 capsules) no annulus — did find a male plant but think it diœcious — ~~all about the plants of No 263~~ I could not find a plant which I thought to be cladodium arcticum as reported in Sch.'s review I refer you all about plants of 263 to C. M. 1. p 269 and to Bot. Zeit 1862 — pp. 328 — 374 — 395 for a discussion about these plants —

I send a sketch of Webera Drummondii in my last from Sitka

"259 Bryum marginatum = M serratum — on rocks & upon trunks of trees" Drummond see sketch with full explanation — no B. marginatum (= B. spinulatum) — no M. orthorhynchum v. brachyrhynchum but simply M. serratum — see explanations on slip

— 21 Bryum (Webera) carneum — I return sketches made some time ago —

— Bryum Brownii — a sketch returned which you pronounced to be this species

— Bryum lacustre — two localities by Harrington and Dall sketches now returned as being correct from a former examination — One specimen for yourself

— Bryum subrotundum — I return a packet received from you as Bry. Warneum altho' no good plant yet it

is monoicous and cannot be B. Menziesii but it is B. subrotundum I retain some of it as I infer you have a stock of it —

— Bryum calophyllum Ph. B. = B. latifolium BPS
Santa Barbara Cloverdale Co. W. E. Porter leg
this plant you had had before & reported it right

— Bryum Muehlenbeckii — Gravelly soil Blackwater River British Columbia — Macoun June 1875
See sketch etc.
Austin has made this a N. Sp. and I think he names it Bryum flexuosum and has it reported in the Number of the Botanical Gazette which I sent to you some time since

— 3 Bryum obconicum San Jose California
Mrs A. E. Brown Oct 1880
I send the packet I am pretty sure of it but if you wish a sketch please return it — this however is of no importance unless it is the only plant —

— "266 — Bryum turbinatum" Drummond
Schp. in his revision makes this Cladodium inclinatum
See sketch it is dioicous and is not Cl. inclinatum
It has an aspect different from B. turbinatum but as it 266 is not mentioned in Schimper's or Müller synopsis — they may have considered it a B. turbinatum sketch is full & I submit it —

— Bryum Biddlicomae Aust This plant & sketch has been discussed by us sometime back — I send you a packet for yourself —

— Bryum Atwaterice C Mul reported in Bulletin
I have made a new sketch of No 10. Oregon Hall which I consider identical ~~with~~ and on same slip leaves of B. atwaterice from a specimen from herself the plants are scraps which compare with the find No 10 Hall — this packet keep — the sketch presents all characteristics and is fuller than C Müller discription in Bulletin — found a good male plant see it on back of slip.

— 59 Bryum Macounii Austin Brit. Col: Macoun
See sketch — all the plants were barren and by comparison recently made with it & B. atwaterice I consider them identical — I have not saw fertile plants from Mrs Rey —
a second sketch made some time ago

— Bryum miniatum Lesq — see a sketch of B leaves for comparison — I have ~~two~~ few & no good plants ~~capsules~~ operculate capsule —

— "259 Bryum marginatum = Mn serratum" Drummond
See sketch with full explanations and references written thereon — there are no B. marginatum = (B. apiculatum) No. Mn: Orthorrhynchum v. tenellum in the Drummond set but simply Mn: serratum the M. ~~ad~~ acuminatum I afterwards found in Mitten collection loaned to Sullivant which Mitten got from Drummond private set = see full ~~sketch~~ sketch —

272 Mnium Sp nov. this plant ~~I~~ found in all the sets of Drummond with 272 dim: stygium how it could have passed the inspection of Schimper & Wilson I cannot imagine it does not resemble C. stygium in any particular
See sketches and remarks on the envelope —
Cladodium stygium is found in Dum & Montreal too,

— Mnium Nevii C M. in Por. Bullet 5. p. 5
See sketch made from a specimen from Rev W. Nevins I refer you description of C M. in Por. Bull.
a packet of the same probably from Prof Macoun is within which on the sterile stems have the leaves very closely & compactly imbricated
The Nevins plants do remind one much of Mn. ciliatum —

If any other sketches or information that I can impart I would willingly give it —
I will go on with the Hypnaceae I have much for you and have more to examine
Dr Gray will leave Europe for home near the end of October

349 ~~Bryum~~ (Webera) "sub gen Webera"
350 ~~Bryum~~ (Webera) "sub gen Webera and ~~nutans~~
"Schimper C. Mull Syn 1. p. 334"
351 ~~Bryum~~ (Webera) "Webera sub gen Webera
"comutata. Sch"
352 Bryum (~~Webera~~) "Webera s. gen Webera"
353 ~~Bryum~~ (Webera) "Webera s. gen Webera"
354 ~~Bryum~~ (Webera) Webera s. gen Webera"
~~Nakfenjegu~~ = "albicans"
355 ~~Bryum~~ (~~Bryum~~) "Leptobryum"
356 Bryum "s. gen Bryum"
357 Bryum "s gen "Bryum"
"olim var. of B. intermedium"
358 Bryum "s gen Bryum" "Bonxeed"
"leaves are broader in authentic specimens from Schimp"
359 Bryum "S. g. Bryum"
360 Bryum "s g. "Bryum" S. i B. sub rotundum Bud Sept. 57
361 Bryum "s g. Bryum" distinct species = See Next plate"
362 Bryum "S. g. Bryum"
363 Bryum "S. g. Bryum"
364 Bryum "S. g. Bryum"
365 Bryum "S. g. Rhodobryum"
366 Bryum "S. g. Bryum"
~~Billederii~~ = "B. canariense ~~Schimp~~ Sept 1869 214
see Flor. N Zeal p. 86 see corroll p. 76
Platyloma = "B Donianum Grev & Arn - see corroll p. 75
367 Bryum "S. g. Bryum"
368 Bryum "S. g. Bryum"
I am strongly inclined to believe from the descriptions & figures given in the Books and from the specimens that I have examined that B. capillare, B. concinnum, B. platyloma (= B. donianum) Billederii (= canariense) are all forms of the same species. Sept 1869 W. S. S."
369 Bryum "S. g. Bryum"
370 Bryum "S. g. Bryum"
371 Bryum "S. g. Bryum"
372 Bryum "S. g. Bryum"
373 Bryum "S. g. Bryum"
374 Bryum "S. g. Bryum"
"leaves decurrent"
375 Bryum "S. g. Bryum"
376 Bryum "S. g. Bryum"
~~Mytlocarpum~~ "sanguineum Lisd. = Wilson"
See Hook Journ Bot Aug. 1856 - a new species B. rubens
Mitten near to, but differing from B. sanguineum and "occurring in the temperate parts of Europe, asia and north america"!

Cambridge Oct 31. 1881

My dear Mr Lesquereux

Upon the receipt of your postal card of the 16th I set about investigating & sketching the Brya - occidentale & California & Obconicum & now begin work —

1 — Bryum occidentale Sull see sketch from the original specimen from Sullivant Herb marked —
Bryum occidentale Sullivant California Beglow 1854
I drew all the figures from the plant under the camera very fully and accurately — and afterwards compared them with Sullivant's Illustration Ex. III. Whipple's Expedition
The natural size I seem to have selected a larger specimen than Sullivant did or may hap ~~a little~~ some magnified (not drawn under the camera) — The perichatial leaves are given in order
I have selected representative leaves — the 4 upper ones are from an innovation — The male plants I sketched from a specimen which I took for a ♂ one but did not detect antheridia — I found another in which I got antheridia and sketched the 2 with paraphysis & 2 leaves
I consider it a good distinct species

2 — "284 Bryum occidentale Var." from Mus. Exsic. S & L
"Bobconicum Mus. Exsic Am 18[1]6 ed 1." side sketch.
It is from a plant in my set — It is not B. occidentale but surely B. capillare. It is all drawn from one plant
It requires no remark sketch shows it — B. capillare

3 — "283 Bryum occidentale" sketched from a specimen from my set of Mus. Exsic. 2d ed —
This has not the aspect of B. occidentale nor yet of B. occidentale some of the leaves are suggestive of B. Platyloma = B. Donianum

4 — "Bryum occidentale var in California (Bay of San Francisco) Bolander legit" Lesquereux labelling — Specimen from Sullivant herbarium — Sullv. remarks on the packet —
"These specimens belong to B. capillare not to B. occidentale examined Sept 1869 W.S.S."
Probably he is right! some leaves resemble B. Donianum but others are B. capillare all from one plant — The antheridia & paraph: are numerous

5. — "Bryum occidentale var California Oakland in the woods Bolinder legit" in Lesq. labelling the specimen was from Sullivant herbarium ~~but~~ packet is cracked =

"These specimens belong to B. capillare not to B. occidentale examined Sep. 1869 W.S.S." ~~See sketch~~ — The sketch in the leaves have some aspect of B capillare but I detected anthridia & archegonia in same cut, spe — therefore some other species which I cannot place ~~the~~ all from the same locality I did not look into another plant I do not recognise it.

I found a male plant distinct. Hand see sketch by Lesquereux & Lesq. infer this hermaphrodite state is a freak

6 — "Bryum occidentale Sullivant California Bolinda. Lesquereux labelling legit"

See sketch —

There appears to be ~~two~~ distinct species in this packet from Sullivant herbarium — The ~~[illegible]~~ sketches are from 2 plants probably both B. capillare the archegonia are numerous — some of the leaves of the first plant have the serratures and broad margin of slightly colored cells & the large leaves of the other are evidently B. capillare.

7 — "Bryum occidentale Sul." ~~Lesq. labelling~~ "This form is mixed with the specimen of Bryum oblongum of the Musci exsicat and agrees exactly with fig. & description of the Botany of the Expedition in Bigelow Mexico" In Lesq. writing — "This is B. capillare W.S.S. (1869)" The packet is from Sullivant Herb. — It is evidently B capillare

8 — Bryum obconicum Hook — Vorges Schimper M. I have sketched from this foreign specimen for comparison with our species —

9 285 Bryum capillare sketched from 285 of my set of Musci exsicat for comparison —

On the back of this slip I have drawn from a small specimen — however they are both B. Cap — Note the numerous antheridia of this

— Bryum Californicum Sull. Mss April 29 Bigelow

This is from the original ex. of Sullivant herbarium — I had drawn so much of the plant when I looked at Sullivant's description in Whipple Exp. & finding it agree exactly I did ~~not~~ further more & so refer you to Sul. description — I consider it a decidedly a distinct species —

— 292 Bryum californicum Sull. in Bot. P.R.R. Survey (Whipple) p. 188 t. 6 —

Drawn from specimen in my set of Musci exsic. This is accurately an error

It differs somewhat from B occidentale ~~[illegible]~~ It may be B obconicum

All the above sketches are drawn under the usual high power of the Compound

* I delivered mentioned to you the confusion which the ~~[illegible]~~ specimens of Bryum occidentale or B. capillare had fallen into and so called my attention to it — but as I thought two such savants could settle discrepancies & did nothing about it —

Now as you have requested an investigation I have very carefully drawn all the characteristics of all specimens and submit for your decision

+ I shall return all the borrowed plants to the Sullivant herbarium

In Sullivant's copy vol. 1 of Bryol. Europ (Bruch & Schimper) are written remarks by in pencil under a number of species which probably you have not seen — I therefore copy them for you —

At 331 of enumeration I find — cladodium sub gen. circinum — B pendulum Schp in corollarium

334 — (Pohlia) Cladodium s gen —

339 — (Pohlia) cladodium s. gen

340 (Pohlia) cladodium s gen and at Warnstorf in writing "Flores bisexuales et polygami" and at intricatum "Flo. dioice"

341 Bryum (Pohlia) — "Fierea

342 Bryum (Pohlia) "Webera — accuminatum var sub gen Pohlia accumulatum sub gen Webera"

346 Bryum (Webera) "sub gen Pohlia" — longatum var B "a new species see Fascic. 32 = B. longicollum"

347 Bryum (Webera) "Webera sub gen Webera" hum. of Schreber

348 Bryum (Webera) "Webera sub. gen Webera divicus"

Cambridge Nov 12 1881

My dear Mr Lesquereux

Yesterday I went to Bot. Garden to call on Dr Mrs Gray - I then went to the Hill and brought home Schwegr. Supp III. Sec 1. 2. and last night copied the generic descript of Pleuromnion and send herewith

I have sketched from plants of your packet & send now

— Bryum Ludwigii Rocky Mt Hill

See sketch ~~all~~ on the ~~face of the~~ back of the slip are 2 plants under ½ power on the face of the slip are sketched under the usual high power all ~~from~~ hours the leaves etc are of plt No 1.

— Bryum Ludwigii or commutatum Brms. Alps

See sketch I do not perceive any material differences - the apiculus of the operculum ~~can~~ is a little more prominent & ~~pa~~ the serratures of the leaves are very little stronger -

— Bryum Ludwigii Sprengl. In Sem. Vogers

I have made a hasty sketch of this foreign plant for comparison - I have other specimens - one from Lap. I Austrian & 2 ~~from~~ British from Hunt these latter are much ~~larger~~ robust - I did not think it necessary to sketch more

— ~~186~~ Bryum Bolandii Vol 5. No 411.

See sketch on the back of the slip you will find 3 capsules ~~in~~ a male plant an the indusia see figure also a magnified base of a leaf showing areolation ~~and~~ on the face the plant No 1. under high power - with all parts ~~of~~ of the same plant - no operculate capsules.

I have a packet of this sp from you marked Bryum Dauricum and afterwards marked Bryum Bolandii which I infer is that species sp nov

— 82. Bryum Drummondii - Vol 5. No 406

See sketch on the back of slip are 3 capsules - the No 3 ~~found~~ is much larger than others and I think is a different sp. I have sketched leaves etc on the face of slip - It may be B. Bolandii on the face are all the parts of No 1. It is hermaphrodite or monoecious the areolation of the leaves are distinct close & small and obscure especially in the upper portion & at the base short close & distinct from those of No 3 - see both on the back of slip -

continued

Continued Oct 31. 1881 -

At 377 Bryum "S. G. Bryum"

378 Bryum "S. G. Bryum"
"capsules bad collum large & not so distinct as here figured"

379 Bryum "S. G. Bryum"

380 Bryum "S. G. Bryum"

381 Bryum S. G. Bryum

382 Franklii "S. gen. Bryum"
pilaceum genus ~~anomobryum~~ anomobryum

383 Bryum S. G. Bryum

396 - "A new species M. venustum Mitten (in Hook "Jour. Bot Aug 1856) was found in West Coast of N. "America by Menzies and Douglas"

398 At fig * 2 of M. affine datum he refers this fig as follows viz
* f. 2 belongs to a supposed new species M. insigne Mitten (in Hooker Jour. Bot for Aug 1856) found in Sweden England, N America found by Menzies Douglas Drummond etc!

411 ~~Polytrichum~~ "Atrichum"

412 ~~Polytrichum~~ "Atrichum"

413 ~~Polytrichum~~ "Oligotrichum"

414 ~~Polytrichum~~ "Oligotrichum"

415 ~~Polytrichum~~ "Pogonatum"

416 ~~Polytrichum~~ "Pogonatum"

417 ~~Polytrichum~~ "Pogonatum"

418 ~~Polytrichum~~ "Pogonatum"

over

Monday morning 14th -

I had not out this - so yesterday came your postal C. of 11th Nov. 81 - I had determined upon going to the Hill and getting 1 Bot Gat & then going to Boston for a Danish Dictionary & Grammar now I have this moment your other postal card of same date concerning the first and as to the Bot Gat & Dictionary - I now send enclosed packet by from Herb -

— Bryum Bolandii Lesq No 136

— Bryum medicaule No 135

— Bryum minutum No 156

I will replace in herbarium

when returned from old friend Thos. P. James

Cambridge Nov 8. 1881

My dear Mr Sereno

I have your postal of 5th & also the letter of the 4th —

I have been up to the Sullivant herbarium & cannot find there a sketch of Hampe's Funaria accumulata the only sketches in the herbarium throughout are those of Mr Sullivant or Mr Schaeder's I shall go there again soon and then I will make a thorough search. There is a bundle of from Hampe in which is Funaria convoluta but this bundle has been misplaced there are no sketches of Hampe in it I believe I made a sketch of F. convoluta for you however if you have described it —

Leptotheca I got Schwaegrichen Supp 1 and have copied from it p. 135 (1824) the description & the genus, and send herewith —

I did not find in Sullivant any explanation C. Muller places the genus next to Georgia and Brachymenium he probably would have it near to. I have not Wils. Bry Brit which you have and may consult the opinion in it and see its position there

Mitten under Bryum in Jour Lin Soc which you have — gives Sect. 1. Brachymenium. 2 Paramnion Schw III. 1. which I did not know or I would have brought that volume of Schwaegrichen with me but Mitten has at p. 288 a short description and under that section at p. 289 he makes B. Bryum Mughtii Sullv. our plant so I think the position of Leptotheca would be near or under Bryum or near Brachymenium if we have such a section

At the herbarium I looked into many or most of the four volumes of Bryo — I did find packets viz —

with this label on it

"Hab Sullivant
From Dubuque 1868"
In your hand writing viz —
Bryum Bolanderi Lesq
ad of Pacific coast moss
no 136
About all the Stock Plant seem to me
after seeing it
— Another packet.
. . . . in your writing viz
Bryum medicaulis Lesq
. . . . .
— Another packet —
. . . . .
. . . Bryum miniatum Lesq
. . . . . .

"very little of this" most of the stock here with

I have brought the above packets with me and may have to use scraps of them when I sketch those you have sent for the purpose

I think of sending them in back to you and if the above to be the missing specimens with you mention — you may deduct of them, or a portion of them & if you return I will replace in the herbarium

I will now proceed to sketch your Blandi out — I expect to go to Bost soon & I will search for

Dr Gray has returned — I did not see him he was in Boston

ination of this plant & comparison in all its parts I have come to the opinion that it B. intermedia

Bryum ~~[illegible]~~ Gramnia var californica Albiostendum - it is a distinct plant from the above but as there is no operculate specimen - it will have to be passed

Bryum (lacustre) Alaska Dall leg See sketch
stems very short hyalin
Dioicous; hermaphrodite Leaves are somewhat obtuse very slightly toothed
margined with 2 or 3 slender long cells; stout no apex
about midway, the nerve ceases mostly below
becoming fuscous above, incrustation stems red
leaves not crowded but somal at apex - 2 capsules
drawn showing operculum; annulus in 2 or
outer tuft fibrous; red yellow moderately long
peristome hyaline at apex
by Schimper not like in 332 BDS
portions slender and a filament
seen in those I got out - the peristome so ciliola
to the finish plant, cut up and more like that of 333
B. arcbangi - the paraphyses abundant.

Bryum (lacustre) var (alpina) Popoff Shumagins
See sketch hermaphrodite Alaska Harrington leg
leaves similar to the above except the nerve was short of
the apex which may be so on account of its being a fresher specimen
the first row of leaves all from one plant - the lower from
another it is the same as the above

Bryum lacustre Dorrnfeld July 1844 and
Bryum lacustre Bridel Gramen hemidis Vogesi var
Schimper 1864
I have cut specimens from these packets in my herbarium
and find leaves in every particular like our specimens
the peristome also alike them
I am pretty clearly of opinion the our plants are B lacustre

I had sketched B. Ludwigii from Borge specimens
in my herbarium but have mislaid them but as
I doubt not ~~[illegible]~~ are B. comutatum it all right -
I will next take up the arizona moss and B.
pulchellum - and then go into species of your
letter 29/30 nov. and see into B. occidentale - B.
~~[illegible]~~ alpinum etc etc etc and as I get on will
send results -

Bryum Blindii ? Belleville Ontario macoun
I submit a sketch drawn ~~made~~ a few days ago

Cambridge Nov 19th 1881

My dear Mr Lesquereux

I have this moment - 9.30 received
yours of the 16th -

Please send at once those Oborna &
Brya of California which you have rec.
send you have got the microscope and I
will with pleasure sketch & describe and
I will return to you

Please also send the Dowiei Hymacei
etc etc The Bryum pulchellum - I have
[illegible] in collection of that genus bought
of by Schimper authority he must have
seen it Please send the plant if you have

The position of Leptotheca or as Schreegre
chen has given Peromnion would be as the
proper place after Mnium so C. Müller but Mr
Sullivan places it in Sect 2 of Bryum
I will replace in Sull. herbarium those
packets sent to you when returned
you might retain portions for yourself
I have but one or two Hanp which I took out in
case you would have me resketch any part
add the specimen marked Bry. pulchellum
cascade mts - Macoun - I have not a very
distinct recollection of it - I will ~~[illegible]~~
over it thoroughly -

I have just gone thro' a large collection
of Connecticut mosses collected by Chas
Wright in 1878-79 - some good specimens
but ~~one or~~ scarcely any novelties

Cambridge Nov 23d 1881

My dear Mr Sesquereux —

I have just sketched two Bryum Ludwigii and send

— Bryum Ludwigii f. in Kippen Rossica (see sketch) from a packet of my German collection from Ansbrom & from such a source I infer it is true B. Ludwigii. It is drawn under the 2/3 usual power all parts are in perfect the male plant from one specimen & every leaf is given

— Bryum Ludwigii spring Lochnagar (scattered) 1868 J. E. Hunt

This sketch is all drawn from one specimen I have from J. E. Hunt who B. Ludwigii collected by himself "Ben Mac-Dhui 15 July 1868" from one form "Ben Mac-Dhui 15 July 1868" from a tussock of perpetual snow. It is a large plant but barren. See Schr Synop p. 400 where he quotes this specimen

Another — labelled B. Ludwigii Brunelis = B. schimperi Wils. Pen Lawers Perthshire 7/10 July 1868" which has fruit see Schr Synop. = "sterilis"

I have another from same source labelled Bryum Schimperi Wils. North Wales Jun 1868" But Schimper Synop p. 400 makes B. schimperi & its synonym B. neilanus and does not have it B. Ludwigii as synonymous

I copy these quotations etc to show the confusion & discrepancies —

If you wish sketches of any of these Bryum Ludwigii signify it and I will make them

Cambridge Dec 2 1881

My dear Mr Sesquereux

I have just rec'd yours of 29 '30 Nov 10 '30 A.M. — I have sketched several Bryum which I enclose the specimens Dozies etc I have laid aside for the immediate present — If I find any quite novel I will ~~there only I will sketch~~

— Bryum Warneum Ditches, McDana Bol. C

~~The~~ Monoicous & terminal on branches — Leaves not strongly revolute ~~and~~ above ½ way — plain near & at apex — margin in 2 or 3 very slender long close cells — at apex some two or very few serratures say one or two — the nerve is red below gradually upward fuscous but ~~in~~ at the apex crowded ~~into a~~ comal — The innovations are red stems, leaves scattered and close at apex some only abrupt may be fractured, none have the curved or twisted aspect as represented in B & S. Many radicles above junction with main stem. Male plant terminal on an innovation reddish radicles as the others — antheridia & paraphy — fow I have drawn 3 capsules of different forms not strale but very slightly inclined operculum with an apiculus annulus large in 2 or ~~3 rows~~ peristome small see 3 sketches low power ~~= 2/3~~ high power — & magnified similar to the foreign with abortive cilia

— Bryum Warneum 80-5-401 1-20 Sanear 79 I have sketched from this brown packet on the back which you can see is similar —

— Bry. Warneum Blank European specimen

I have sketched from this you can compare the pedicel is very long — capsules more rounded none of the ~~abrupt terminal~~ twisted stem as seen in B & S. ~~on this specimen drawn~~ The sketches are not very dissimilar ~~you I do not find~~ I have drawn all my sketches from the specimens and afterwards looked into B & S. for comparison ~~& I think~~ the foreign specimen

You will find sketches & specimens of B. Warneum within the brown paper packet

* I cannot think it B. archangelicum I am puzzled to determine it ~~after~~ on comparing it with your European specimen it does not correspond with B & S. T. 340

— Bryum archangelicum — from a further close exam

(1881)

(Cambridge) Decem 2nd evening. –

I had not sent this letter to the P.O.
and now have yours of 29th (should be 30th).
You say you will not trouble me for any
more drawings of Bryums – and that you
have described B. occidentale from Sullivants
descrip & plate – that is all right
I am pleased to see my sketch of the Arizona
Moss. as I had intended sketching it – You have
it B. Donianum. I will look at it tomorrow
(As to my B. capillare? – I have abundance
of this and return the specimen and think
I can spare more if you need will see
into it and compare with your B. Donianum
– um foreign. (Italia
Will report when examined fully
Your friend
The P. James

Cambridge Dec 8 1881

My dear Mr Lesquereux

~~I have had~~ Bryum pulchellum Macoun Cascade Mt 1895

I have had a good unexpurgated specimen from this locality and as no specimen plant is to be had the annulus or no annulus can be had to determine it — the leaves are not characteristic — and I find the leaves of this (the Cascade Mt) has at the base of the leaf ~~two~~ one and then two rows of cells are red — the nerve reddish and reaching upward a short distance then fuscous — I have a slender specimen from Chirkatan 1846 Dr. Lay a foreign and which I cut off leaves of a plant and I find the same redness at base a few more cells — the nerve stouter red and upward some distance then fuscous —

Now: this redness found in our plant must have determined me to name it B. pulchellum — but as we cannot be assured about the other character (annulus) I think it would be better to leave it out of our ~~list~~ manual — unless more comes from Prof Macoun — I find U.S. plants have not the redness — I may have submitted it to Sullivant he has only a casual glance at it

10 — Bryum — Arizona Leow —

~~I have~~ This is Bryum Donianum — No doubt — ~~I from~~ ~~the author~~ ~~plant~~ I find the plant sketched with the leaves of the no doubt nerve short of the apex to be a different sp. ~~probably~~ B. capillare ~~(but the bottom of the plant is the form of the leaves) the apex & the~~ ~~Donianum~~ only a stem or so of this but the few long plant is B. Donianum in form of leaf not spatulate obtuse dentate at apex nerve to the apex & mucronate the strong margin of several rows of cells (at the apex) — capsule right —

— B. capillare Roadside to Pepple house Nov 5

proper of the stem contorted & twisted & had all leave in a dry state in wet state to spatulate and narrowed towards the base ~~somewhat~~ ~~spatulate~~ not much concaved the margin slightly reflexed and den ~~obtuse~~ ~~dentate~~ margin in apex of slender ~~apiculate~~ nerve is late at the point ~~apiculate~~ long & limb ~~apiculate~~ mucronate below ~~obtuse~~ mucronation short the apex nerve ~~obtuse~~ ~~leaves~~ shortest. nearly some at base leaves not crowded ~~coma~~ coma ~~at apex~~ areolation loose large cells ~~[illegible]~~ capsule long narrow curved horizontal operculum operculate

10 Bryum — Rock & moist places ~~Hook~~ diviors Oregon Hall leg —

I have sketched this in full as the only specimen I have in full fruit — You will observe the peristome it resembles much that of B Muehlenbeckii — the annulus is not ~~more~~ that of B. Muel but like B. alpinum revolvable in some rows more obtuse & broader leaves — are ~~not so~~ at ~~the point~~ ~~not so strap~~ as B. ~~Muel areolation much~~ not so revolute as it is represented in B.&S nerve is stouter and ~~[illegible]~~ ~~[illegible]~~ with a reddish ~~[illegible]~~ yellow and ~~red~~ below the apex ~~cells~~ areolation much smaller the walls of cells ~~[illegible]~~ more slender and quadrate at the base plant ~~[illegible]~~ a dark brown aspect with reddish at the points of the leaves and rather robust this was alwater plant

— Bryum atwaterae Yosemite Mrs Atwater

~~Barren~~ ~~[illegible]~~ ~~[illegible]~~ the point of a male plant is seen the leaves resemble much the above not so concave by the specimen cut areolation much the same may be larger and obscure than — Plant is lighter greenish

— Bryum Macounii Rust Vancouver Macoun

barren a slender plant brownish yellow tinged with red as the points in some leaves broader the nerve slender and vanishing near the aspect I did not detect acuminate

— Bryum Biddlecomiae Colorado — Miss Biddlecome

I thought I had sketched this but I do not find it so I have sketched it again It is dioecious I could not observe paraphyses — See the sketch of the lower range of leaves pte and extension of a stem not yet fruiting which was the clearest.

The capsule is a pale green peristome a cladodium the annulus two rows of cells ~~moderate~~ leaves of the first range one all the leaves of the drawn fruiting plant which have a margin of 2 cells or so and ~~quite~~ slight serratures near apex, nerve excurrent mucronate — the leaves of the ~~other~~ lower range are of ~~the~~ end of a plant not yet in fruit better leaves these have leaves mostly to the apex — the 3 ~~[illegible]~~ under the usual high power show slight areolations nerve not ~~to~~ quite to the round cells marginal ~~&~~ somewhat recurved the innovations slender red leaves scalloped ~~&~~ some comal ~~[illegible]~~ also any slender ~~[illegible]~~ flagellifer curved, indeed like those represented in B Warnerae B&S. Indeed the whole plant comes nearer to B Warnerae than any I have seen — Sullivant has in pencil on the illustration ~~[illegible]~~ ~~[illegible]~~ 1895 "Flores bisexuales et polygamii" and ~~[illegible]~~ in Corollarium — "flores plerumque monoici rarius hermaphroditi"

so I think rightly we must infer that it is dioicous —

— 259 Bryum marginatum Dicks Drummond to which he (D) makes synonymous M serratum Schrad, which Spruce it really — and which Schimper adds to this (M serratum Schrad) Bryum marginatum Dicks so that it is all right Mnium serratum Schrad — and nothing else — no Mn. orthorrhynchum Brellum and further Sch. has under M orthorrhynchum as a syno: M serratum so you need not quote the reference of Drum at all the only mention about it is locality Drum

— Mnium umbratile Witt This sp has been figured by Sullivant Sup. Icon. from Mitten's plants which he had from a private Drum set from the second point of wood Portage river — Now all these specimens I have looked into very carefully after thoroughly moistening them separating the comal leaves not puncturing one of them and I could not find a single antheridia, I have no doubt whatever that it is dioicous as Mitten says and is allied to M. orthorrhynchum which is mixed with No 259 B marginatum which he infers from Schimper's remark or if he did find it (Mn Orth) in his Drum set it must have been the only one having it —

Now I have compared this Mn umbratile with Mn lycopodioides — the leaves of the former are the perichatial only narrower & more longer & strapped & hyp simply and than our Mn lycopodioides — but the areolation is identical — so much so that if our Wh Mn plant is not Mn lycopodioides, it is umbratile ~~compared with specimen of~~ ~~Mnium umbratile~~ I have no foreign sheet to compare it with — I suppose Mitten compared them and

Cambridge Dec 10 1881

My dear Mr. Leguereux

After finishing the enclosed letter to you of the 9th inst at P.M. I took up the following Brya from those masses which you sent ~~for naming~~ to be examined & named and finding them so interesting I held back the letter —

— "355 Bolander Bryum miniatum ??"

see a hasty small sketch within — I took one capsule a fine red one (others pale) an oval form — ~~the~~ dioicous — etc. etc, which consider B. alpinum — see on the back for sketch of another plant intermingled — it is a barren Barbula

— No 355a mixed with 355 see small sketch within paper — This is a distinct plant from 355 it is a cladodium — long pendant capsule operculum rostrate ~~etc~~ at least in Spum drum which I do not recognize — neither do I recognize the plant I submit this little sketch hoping you may know it and name it but if you consider it Sp Nov let me know and I will make a larger & full sketch — I retain a Spec —

— "No 380 — Bryum miniatum ! Les good Specimens do not this B. Macounii B. atlantica etc" I make it B. alpinum — see small sketch — and compare it with sketch of in yesterdays letter which I draw from a specimen sent yourself first sketch is of the small cluster of few plants which I return all of — the sketch on the back is from the large cluster — there are 2 unoperculate Spec

nothing gained by cutting them – the plant appears to be identical with the small one except that it has longer stems – the terminal male ~~flowers~~ buds are on long slender reddish stems very pretty – I retain some of this plant –

"No 372. Bolander Bryum Warneum ??"

This sketch it seems to be B. pendulum or B. inclinatum – a cladodium It resembles B. pendulum in part – annulus – B. inclinatum has a larger one of different form It is hermaphrodite – I incline to B pendulum I retain a stem or two so if you desire a further sketch or further points I can give them

No 366 Bolander Bryum ??" see sketch

I think this new – The capsule is green – the peristome a Bryum – stems short with innovations, somewhat reddish nerve – I could not find antheridia I must draw a larger sketch – I would like you to suggest what you consider it or nearest semblance I retain a few stems –

No 340 of Bolander – see sketches in packet

Bryum suggestive of B. Muehlenbeckii the annulus is large composed of 3 or 4 rows – not so in B. t. s. which large but not of more than 1 or 2 rows the apex of the leaves are not quite right some of them too acute – if not that please say what it is.

Bryum the smaller specimen in packet B. the leaves are oval nerve excurrent margin in 2 or more slender cells did get an annulus ~~no~~ did find an cutting of I submit it – I have not retained any of it so little – also in the mat a Bartramia

Cambridge Dec 19 1881

My dear Mr Lesquereux,

-73 I have examined carefully and
-275 Bryum macrotti Belleville Ontario (macour)
-45 compared these plants with specimens from Southport Eng. 1866 – which I have from Dr Hunt and find them identical – both Barren –

Bryum Bigelovii Sonora Whipples Exped

This is no opercular plant to be had & therefore no peristome – I have only drawn leaves – I have no doubt Sullivant's illustration in Report of Whipple's Exhibition is accurate – you can judge from it whether it be near W. albicans whether it be a webera I could draw leaves only

Bryum flexuosum Austin Blackwater River June 10. 73 Macoun

I made a sketch of this on the unlisted plant with all the plants – I pronounced it B. Muehlenbeckii and I have nothing of it to revise my report now

Bryum miniatum which came to day I will look thouroughly into – and report

B. macounii. I have this only in a barren state. I never saw a fruiting plant which appears is from Oregon and sent by Mrs Roy of Owen Sound Canada how she got it is a mystery I can scarcely doubt but it is the same as we have from Mr Hall and same as B. atwatericum and which I would make both varieties to B. miniatum unless somewhat more characteristics be detected than size to separate them

Bryum Californicum I have look in to and through many fruiting stems and immature stems which organs were ~~could~~ barely seen but were in all instances archegonia – I could find antheridia

Hooker has given a ~~pretty~~ fairly full description good but has omissions - Müller's description is fuller and better so I do not copy it I will copy a remark of his (Hookers) This moss is quite unlike any species with which I am acquainted having almost as much the habit of a Hypnum especially of the dendroid kind as a Bryum. but the fructification is truly terminal all the shoots springing from beneath the perichætium. The situation of the male flowers too if such they may be called is equally terminal. In the shape and texture & spinous nerve of the leaf - this plant agrees with my Hypnum spiniformis (Neckera Exsiccata 29) - (not not Hypnum Spiniforme of Sw)

Rhizogonium spiniforme I have made a full sketch of this to enable you to fix its position - You will note that it is drawn under my high power of camera - whereas Mr. Menzies is under only 2/3d the usual power -

The capsule is from an unmoistened one, when well wet it swells out becoming less but a curved - The peristome is under the same power as the rest of the plant but distinct from the foregoing - Perichætial leaves large - the archigonia long & slender with paraphyses - the two leaves on the back also - margin doubly serrated near to the apex (and I thought some perhaps to be spinous this by a small chitinized part) the margin thickened as seen by the reflection of the leaf the areolation small round and represented in number as appeared in the leaf by camera

Yet has an annulus it became test on examination

- Mnium hymenophylloides Hook Stanton Falls New York Mr. Peck

I have sketched this plant which to my eye resembles the Sheina but when I sent it to Muller. so named he pronounced it Mn. Spinosum I have compared it with Bonp. Jungermannia which I consider is identical. but if you have the slightest doubt about it send it & I will not object . . . . . .

Continued Camb Dec 19 1881

Bryum miniatum Lisy just rec. in letter 14th - a better specimen than I have heretofore had the leaves of the three form the distinct criteria ~~this plant~~ I have placed each under film alternately (as I do when I have a comparison to make) and under my highest power of Cam when the areolation shows the distinct character of each side by side -

In the Miniatum the areolation is decidedly distinct from the others the cells are much larger broader not so pointed in the upper portion becoming midway more oblong and quadrate at the base - not so obtuse nerve vanishing quite below the apex color not so reddish but greenish yellow see a leaf sketch

I have drawn on the other side a leaf of B. atwaterice - See the broader shape of leaf nerve almost to the apex & much more slender pointed & small areolation sharper pointed at the apex color ~~more slender~~ ~~bright yellow to red~~ ~~at the point~~ leaf broader ~~the~~ note this sketch in comparison

The Bryum miniatum is a distinct species decidedly which became so apparent with a good leaf -

The Atwaterice is totally distinct from B. miniatum. - and the B. Macounii is in all respects (no fruit seen) identical with B. atwaterice

We have seen but two species B. Muh

~~Two~~ Bryum Muhlenbeckii from a glimpse at a leaf I do consider it ~~to~~ altogether different

- Bryum Novii Mr I have 3 leaves of this which show a broad border of 3 or more rows of cells of a dark yellow color. Do not find stolons in my packet of it

253 — Mnium subglobosum — I ~~have~~ send you a sketch of leaves of this & a specimen ~~for a specimen of the~~ species from my Drummond set for ~~inspection~~ — ~~which I have looked into and I find the margin~~ under 2/3 power

The ~~4~~ leaves are drawn from my specimen which show a broad dark yellow margin composed of 4 rows of cells as I find all my plants of M. punctatum and as are back as I find in punctatum (the T 307 & 308) by Eur is at great variance —

272 — Mnium — This plant I found in the same packet with Climacium Styginum some few stems of true Stygium were there — this delicate Mnium has not been noted either by Wilson or Schimper in their work and yet there was some in all 3 sets which I had access to —

See ~~the~~ my sketch which you returned to which I had added — I note a remark that there is a sketch of it more magnified ~~which~~ they have sent to you —

It is a diminutive specimen of the M punctatum section but I think it distinct — no mature capsule therefore no peristome the operculum is blunt no speculus the stem & leaves show a full developement of the plant — on one side it is drawn under 2/3 the other and my high power which shows the diminutive size compared with the M subglobosum etc. the leaves have a distinct margin of single cells — occasionally a large cell is seen inside — the nerve vanishes much short of the apex even in the largest leaves which were in some orbicular the areolation is distinct and peculiar the No 272 must be omitted and simply a rind given

Cambridge Mass 1877

My dear Mr Lesquereux

I have some sketches ready so I send not waiting for more —

— Bryum Bigelovii I went to the herbarium for some ~~material~~ about this species — I ~~could~~ did not find any remarks by Sullivant on this species but I did find two packets of it one of old specimens but no operculate plant — I after got a good specimen from this from which his illustration was drawn — the other was of young plants which contained some 16 leafs (large and) from this I send for your inspection the leaf — & which I do not see any inconsistency of your retaining it as you have it not — I sent a few stems in my last I had taken out of the latter . .

— B Bryum Muehlenbeckii New Mexico

This plant I have looked into and find the operculum ~~is~~ are without an apiculus — leaves seem more like B. appinum. If you think it new (it is not at all like B. mamillatum or ~~Atropatenum~~) I will fully sketch it ~~for~~ I send this as much that you may see Sullivant opinion & to be returned —

— ~~Bry~~ Mnium Menziesii — I have ~~to~~ looked at & looked ~~to~~ plate of this plant in Bot Mis Cel: and find it wanting in essential points — the leaves are not good shaped ~~to~~ no areolation whatever — the peristome not correct no annulus so if you are in doubt about its proper position I have made a full sketch for you and so place it

Cambridge Jan 23rd 1882

My dear Mr Lesquereux,

I have sketched leaves of Bryum Miniatum B. Macouniii and B. Atwaterii on one slip under my highest power I consider the drawing accurate made with high power of the camera

~~You will~~ B. Miniatum – the two leaves represent the exact form I had many under the microscope and selected as types these – The nerve is strong & ~~vanishes~~ below the apex – the areolation is that of a regular Bryum very similar to that of B. alpinum – but ~~a number of~~ the number of rows of cells, the cells relative the number of cells from margin to nerve are nearly the same from the margin towards the nerve are narrower than those at the base quadrate and clear and distinct the margin has one row of hyaline cells and is slightly reflexed – the apex of the leaf obtuse not so concave the color of a lead color marked & distinct from the Macouniii

Mem: From my close inspection of these leaves I am convinced that the plant No 355 is the same = B miniatum –

– B. ~~Macouniii~~ Atwaterii see sketch the leaf is much larger and of a different form – the nerve vanishes near the apex and is deeply blunt & slouter – the areolation is peculiar the cells are minute pointed at both ends and the ~~chlorophyll~~ chlorophyll fills the space between them in a measure resembling Sa on P. 349 Bry Eur. W. Spagnicola but the cells sharper pointed – the number from margin to nerve as correct by count – the somewhat quadrate cells at the base is obscure the leaf is more concave and the margins is plain – the color is in all ~~any~~ orange yellow and some at the ~~tops~~ ends of the stem reddish

– B. ~~Atwaterii~~ Macouniii in all respects ~~identical with~~ similar to B. ~~Macouniii~~ Atwaterii – the leaves under the glass was not so yellowish but as I did select so red a stem this amounts to nothing –

I think you will determine with me that the plants are certainly distinct = B. Miniatum & B. Atwaterii & that B. macouniii is identical with B. Atwaterii not even a variety of that

– B. Biddlecomiae see 3 leaves sketch I have notwithstanding sketched the species several times and have sent them all to you I do not recollect nor have any remembrance of the

Cambridge Dec 30 1881

My dear Mr Lesquereux

I send the result of my work since my last – you will label within the packets –

– No 3 – Bryum Donianum St Johns River Feby 1876 Florida

It has a more feeble margin of 2 or say 3 rows of cells – the annulus is large revolubile – and is not any other sp.

– 26th Bryum Donianum ?

– No 16 Bryum candicans – ? see Jour L Soc Mitten p. 303 is as near as I can come to it please see Mitten –

– 39 – Pogonatum urnigerum a small form

– No 342 Bryum pallescens

– No 344 Bryum intermedium with occasional male terminal branches or on seperate stems the fruiting specimens had fur on them in a measure resembling Sa on P. 349 Bry Eur. W. Spagnicola

– 346 Bryum subrotundum as near as I can make it –

– No 345 Bryum intermedium – It is a Bryum (not a Webera) and hermaphrodite

– No 347 Webera elongata var or near it the apex of the leaves are not twisted

– No 351 Bryum cespiticium – The capsule is of peculiar rotund form & being decious and otherwise is like B. cespiticium & yet it has a different aspect but I cannot make any other species

– No 352 Plagiothecium pulchellum Dicks

– No 356 Bryum pendulum by pure time & hermaphrodite character

— 355a Bryum capiticulum see sketch

I have drawn a duplicate capsule of the same plant of 1/2 size within the large size of usual high power — You will observe the slight apiculus to capsule, it color is a dark chestnut brown the moderately large peristome ~~who~~ first one under the high power of camera the other magnified — the cilioline ~~have~~ not appear diculate, apparently or I could not detect such — not seeing them by the other upon the annulus large of several rows of cells I have not drawn it under the high magnified form the nerve of the leaves are reddish below & base a little tinged —

I ~~spa~~ spent much time in searching for the male organs I found one ~~a~~ stem with two gemmæ apparently a distinct stem with a goodly number of antheridia in looking into the tangled mass of radicles I found this and it might have become detached from a female stem I could not find another — I conclude it to be diœcious — the fruiting stems had ~~two~~ ♀ & ♂ organs in same envelope I submit it — please inform what you determine it to be

No. 366 Bryum ? ? I have made a full sketch of this ~~It is a Bryum~~ the capsule is of a yellowish green in color the operculum has scarcely an apiculus the peristome shows the cilia ~~to~~ have ~~to~~ appear dicilate form ~~It~~ it is a Bryum — the annulus very large with several rows of cells — the leaves had reddish nerves & base ~~a~~ very slightly ~~a~~ tinged in some lines not magnified I now observe are similar to 355 — ~~Both sketches~~ were made several days apart ~~which I have a couple of days~~ — the male ~~organs~~ gemmæ I found ~~apparently~~ on ~~the~~ one stem which I have sketched the leaves differ from those of the female see sketch I could find in the mat but one stem (~~It~~ being ~~not~~ unwilling to cut up more of the specimen) please inform me what you determine it to be —

"367 — Bryum cyrrhatum ? ? " is a Webera . . . . ~~the~~ a full sketch you will observe that it is diœcious — all drawn in my usual high power ~~you will~~ I submit it for your determination

— 392 — Bryum (webera) crudum

— 355 — Bryum ~~nutans~~ ~~or alpinum or alwaberg~~ Dav.? I had a few stems of this from which I have drawn a larger sketch so as you say it is not B. alpinum you may form an opinion of it —

other tuft I took an immature capsule which is represented within the larger capsule and is another specimen with a branch longer leaves twisted when dry — ~~It seems to be~~ Br

91 Bryum binum

85. Barbula laifolia which Austin had labelled Barbula oblongifolia with —

I have examined the following plants which you sent some time ago — and find

— 384 Decianum fascescens Carn. olim D congestum

— No 38 & 39 Dicr: fuscescens — same although it varies in trifling points yet I make nothing else

— Bartramia calcarea — when I first looked into this plant I thought differed much in several points and therefore determined to sketch it — but when drawing the characters found it was not so variant — I however send sketch for your eye
a plant of natural size & from which all are drawn see sketch — I got out the most mature capsule but all under 2/3 dual power
could not get a good peristome — I give all the 6 perichaetial leaves — which are ~~long~~ ovate long acuminate
the uppermost row
striate as you see — the others are from below the stems (innovations) downward not very falcate —
on the back or other side of slip are 7 leaves lower range of stem (innovation) and above a male plant with nine perigonial leaves — you note the form the nerve vanishes below the apex

Continuation of Jany 3rd 1882

and cannot recall any characteristics of any sketch unless before me ~~I cannot recall~~ so I have taken off the balance of my mounted specimen to I had at the last sketch taken off a portion as I could not find unmounted plant I had when I received the packet from Mrs Biddlecome divided the stock and marked one for you and ~~I~~ I can not find I conclude I must have sent it to you —

I find this specimen is bisexual and some of the leaves are chlorophyllous as seen in the first but I was not aware that it was intermediate between B. Warneum & B. lacustre — I submit these additional leaves for your decision on this point as I do not know to a certainty which of the specimens which I have sketched from time to time are the Warneum & lacustre ~~as I have not~~ I am not informed the names you adopt so I cannot make comparative sketches of them

— Bryum Blindii I have placed the leaves of a stem of each our Ontario with Hunt's Southport Eng plant, and have compared them side by side & I have concluded that our plant is B. Blindii — by form of leaf and areolation it is distinct

— Mnium subglobosum I did think our 272 a distinct species from the very shortness of the nerve the areolation and the margin of a single row of cells — but now consider it a young form of Mn subglobosum — an error occurs in Drummond which I have detected — No 253 had the Mn. punctatum major and 254 had the Mn punctatum I had not looked in 254 and so I sent

a specimen from 258 thus the mistake in saving Mn. punctulum — I have now examined both and find the Mnium of the 258 distinct ~~but the~~ and no doubt the one not so fully ~~agree to~~ that Schimper's description — so you have it described — the 272 whence ~~may be~~ the one which I sketched in in that No. by mistake for 273 was to have only A. Cuculidium Stygium

If you have the least doubt of Mnium Hymenophylloides please omit it altogether

Cambridge Jan 12 1882 —

My dear Mr Lesquereux

I found only one novelty among the dozen & half of Iowa Mosses from Dr Archer which I submit the sketch & specimens to you

— 7. Hypnum all under usual high power Charles City Iowa
See sketch ~~Hypnum~~ C. Archer Esq May 1873
The capsule is peculiar slightly curved operculum large apiculus not prominent — peristome of the genus annulus large compact & confused pedicel smooth perichatial leaves — large thin texture the nerve not ~~thick~~ strong vanishing below apex the somewhat translucent apex absolutely serrate see the 3 leaves drawn into the capsules — The stem leaves ovate ~~acute~~ acuminate nerved midway not concave entire & branch leaves falcate concave nerved halfway — monoicous the gemma minute — Please report the species

Among the dozen mounted plants of Prof Macoun were Bryum uliginosum — Hyp. corrono — Hyp. acutum which was labelled by Austin Hyp. Austinii Sullivant — I was not aware that Sullivant had named a Brachythecium Austinii before was it published by him —

83 Fissidens venticosus — which was labelled Fiss: Hallianum Ferguson 1871 (a Scotch bryologist) but your name has priority — Dec 1867 — Fi

Trichostomum anomalum barren — Trichostomum? scitulum a plant so named by Austin was published in Bot. Gazette V. 2. p. 29 — it ~~was~~ described very meagrely from a barren plant — see his diagnosis our plant differs ~~it~~ Prof Macoun — which ~~it had~~ been seen by Austin is not stated

— 87 — Trichostomum scitulum Athabasca plains Sept 20 1872 Macoun — under usual high power
See sketch etc — the plant is small and is as much to a Trichostomum as to a Desmatodon the leaves do not stand out from the plant as in that species — the capsule is like to a ~~pecto~~ Trichostomum — the peristome is rather quadrifid cribrose — annulus simple — teeth are broad & embracing at base attenuated and hardly serrate at the point papillose ~~on the back~~ the few perichatial longer sheathing — male organs near the pedicel anthers long slender paraphyses sub vaginal — the upper involution obscure I do not find a resemblance in any figures — Austin published Trichostomum scitulum in the Bot. Gazette V. 2 p. 29 from a barren stem of New Jersey plant — a meagre description which see —

This specimen was labelled by Prof Macoun and whether Austin had seen it I do not know —

— 88 — Bryum cespiticium — 89 Webera — not in fruit ~~not~~ determined — 90 Bryum Subrotundum & coll J. Fowler New Brunswick 1871

This plant I have sketched see it — as

— 90 Bryum capillare? It is very small and wholly in sand ~~grew in~~ dioecious some branches had antheridia only — ~~found~~ ~~not~~ got a good peristome capsules were too immature to the shape of the scapules and the leaves seem to be Bryum Subrotundum — There were two small tufts from the

Cambridge Jan'y 28th 1882

My dear Mr Lesquereux

Yours of 23d is received the —73 Bartramia .... Vancouver's Island ~~Macoun~~ is an usual small ~~plant~~ plant — and might have its name from the reason it is surely a new species you may name — It will not do to name it for Prof Macoun as Austin has named a B. promiformis for him and published it — It would lead to confusion to make B. Macounii, we can compliment him with naming some other genus — ~~the plant was sent to me by Mr Macoun~~

You have described B. Muhlenbergii which I consider right — Do you introduce B Marchica? I sketched ~~a~~ Swamp Bartramias ~~of~~ & ~~sent~~ to you were any of them B marchica? —

—59 Oebera or Bartramia — Royston Park Iowa I have hastily sketched 2 leaves of this — To my eye the areolation is not that of a Bartramia — But as it is to be omitted nothing more of it —

— Bartramia Mohriana C Mud. Have you admitted this sp into the manual? I sent a sketch of it some time ago —

—44 Physcomitrium pyriforme? Colorado Devonie The aspect of this seemed different from pyriforme that I have sketched it — the capsule is unusually long & neck too, operculum more prominent still it may be only a var. of pyriforme

I have been going thro Prof Macoun's last consignment but not finished I took up all the Bryum & Mnium and have found the following — that I do not quite know the species — viz

Cambridge Jan'y 18 1882

My dear Mr Lesquereux, Bud.

I have been up to the Herbarium this morning and I find the following remarks on a packet thereof — viz: —

! — Bartramia Marchica (♂ ♀)
(= B. Muhlenbergii) Ohio —
" Sept 1853 — compared the within critically
" with authentic specimens of Bart Marchica
" (Euche Schimp) cannot see wherein they differ
" from that species — Male & female in all details
" compared —
" These specimens are doubtly B Muhlenbergii Schwg
" Within one male plant } Also male plants of no-
" of B marchica } tably Bry Nahlenbergii

And two sketches one " Decorus
" B Marchica = Muhlenbergii A S 1856
the other — " Bart. Muhlenbergii = Marchica A S 1856
These two sketches represent leaves — which appear simply somewhat broader

In Schwaegrichen Suf. 1. Sec II. p. 58 is his description of Bartramia Muhlenbergii (simply no remarks by Sullivant) at plate XI B. Muhlenbeck Sully has marked = B marchica

I find in C Muller Syn — a closely similar description

So Sullivant in 1856 has determined B. Muhlenbergii to be idently B. marchica —

— No 59 Bartramia — Royston Park — We have no fruiting specimen — noticing the male plant to be prominent — I sketched the male plant and all the perigonial leaves, on the back of a slip of my former sketch which surely do not resemble those of B. Marchica in Bry. Eur. . . . . .
So I dismiss all B. Muhlenbergii considering them all B. marchica

— 73 Bartramia Vacouvris Dr Macoun
It is a very delicate monoic plant and it is
dioecous & in char differs from B. radicalis but
more in its other characters. its stem leaves are
oval (narrowest at the base) long acuminate rather
strongly serrate areolation more quadrate
cyl. papillose: the perichatial lanceolate quite
long acuminate striate or plicate more sharp
ly serrate — stem leaves somewhat broad
ovate & extending to a long slender point.
branch leaves smaller and some falcate —
Male gemma with large outer perigonial
leaves quite broad at the concave base and
acuminating to the point — nerve not
strong vanishing below the apex ~~more~~ the
inner leaves broadly ovate apex more ob-
tuse nave shorter
It is more like B. macrica than B radicalis
— — — — — — — — — —
If you think the variations do not amount
to enough to seperate it from B. macrica
it might be a variety signifying small
copy remarks by Sullivant on a slip in Hobim
showing B. radicalis to be B. longisata — — —
— — — — — — — — — — — — — —

— 20. Bartramia radicalis Beck's Co Porter is
right! I eventually found the male organs in
envelope by the side of the female

19th I have been looking over a number of my nat-
-ive & foreign Bartramias to day & taking up —
— 50. Bartramia — New England see sketch
It may be B. macrica = B. Muhlenbergia the
perigonial leaves have a distinct form some quite
broad at base — What do you consider it?

— I have sketched the perigonial leaves of a
B. macrica from a foreign specimen to
show the actual of an authentic B macr
-ca for comparison it is drawn in the high
power — I send it —

— 73 Bartramia — I took this up
again & I have sketched on a small slip
the perigonial leaves of another male
gemma — you still will observe the large
broad concave obtusely acuminate form
nerve vanishing towards the base and
ending quite below the apex of three of the
leaves, and the very broad base and rather
abruptly sharp acuminate point and
nerved strongly of others on the back of the
slip I send the old & the last = three; as
I consider it sp. nov —

— 57 Webera — not a Bartramia I took
this up again to day — I find the areolation
is that of a Bryum (Webera) it is by no
means a Bartramia areolation — I had
two days ago sketched on the back of the old
slip a male plant & the leaves of it but had
not noticed the areolation — At anyrate
there are no fruiting plants and nothing
can be made of it — I return it that you may
see it —

I have been examining Macoun's large collection of May 1881 — I still find novelties which I sketch and they will come up in course I am by no means through them

Your old friend & tutor
J P Lesquereux

Cambridge Feb 8 1882

My dear Mr Lesquereux

I have examined all of Prof Macoun's Musci and do not find many novelties — the only rare plants are Splachnum sphaericum — Fontinalis squamosa in fruit — Dicranum neglectum — Dicranum nervosum in fruit Amblystegium polygamum in fruit — and the following viz —

15 Anacalypta — Winnipegoos Lake Macoun

see sketch — It may be Anacalypta latifolia but it does not fully resemble B.T.S. t. 128. I could find only diœcious terminal gemma & lateral on separate plants — I did detect apparently a male stem attached at the low root of a fruiting plant but this male gemma was terminal and may be only seemingly attached — the peristome differs in not so long — operculum blunt & the leaf not so concave & nerve to the apex — form of leaf not broad above compare sketch with B.S.T. 128 Keep specimen

66 Hypnum Plagiothecium — Lake Winnipegoos Macoun

see sketch — I do not think it is R. turgescens.

I have looked into your Grimmia & find

379 (no 1) "Grimmia" — California Bolander

see sketch — It is a dryptodon or Racomitrium by its distinct areolation — I do not find its likeness it is more robust and of a different aspect from no 2 — no operculum no annulus

I got one good peristome — see sketch, the teeth mostly quadrifid punctulate connecting bars in upper portions purplish red — capsule under high power — leaves are on the other side all under 1/6 power — observe the perichætial leaves and the stem leaves mostly concave obtuse & some acuminate nerve to apex and vanishing below in obscure areolation some recurved areolation like & continuous sinuous not in abrupt decurrency

See sketch — the leaves towards the end of the stem fulcate

I did not find male plants, not authenticated as dioecious

379 (no 2) is a dryptodon or Racomitrium — see sketch there was no capsule with attached operculum I found two loose calyptræ among the plants

Continuation of Jan 28th 1882

34 Bryum — Bogs Porcupine Mountain

See sketch — the stem tomentum with brittle innovations It is diœcious, the peristome a Bryum operculum a slight apiculus — annulus 2 rows of cells close or compact — not very large — perichætial leaves inner ones small some incurved nerve excurrent the outer ones broadly lanceolate nerved thro' obsoletely serrated and very slightly reflexed. stem leaves rather squarose imbricated in tomentum ovate acuminate — nerve excurrent margin of 2 long slender cells and decurrent scarcely reflexed not concave areolation very small and quadrate below male plant gemma terminal with innovations the perigonial leaves large broad nerved to apex stem leaves as above antheridia numerous with paraphyses —

Is it not a new species? —

33 Bryum — Lake Manitoba Macoun

It has the Bryum peristome is bisexual — see sketch under 2/3 — stem quite short and no or very few short innovations — perichætial leaves long lanceolate, long acuminate nerve beyond apex margin with long slender cells reflexed — stem leaves in tomentum ovate acuminate. Capsule pendant long neck apiculate operculum angulate medium light green color

33b Bryum — from the same packet —

See sketch 1/4 — Stems longer with long innovations & extended stem branches — perichætial leaves broadly ovate long acuminate margin slender cells and reflexed — Stem leaves in tomentum small ovate ovate acuminate margins with slender cells decurrent lower leaves oval — the four lower leaves are from a stout flowering branch capsule long stout slender neck operculum apiculate

annulus or more closely revolvible

I am much pleased at finding a fine fruiting specimen of Mnium

— 30 Mnium umbratile Porcupine Mountain Brit. am. Macoun

I divide my specimen with you for you to keep It is surely a distinct sp from Mn. lycopodioides the capsule is horizontal & has a peculiar white corrugate operculum and am glad to have a male plants (one sent) which Sullivant omits You have written a description

I will ere long examine & report upon your two or more Grimmias which some time since came from you

— 7 Hypnum — Charles City Dowdle Iowa

what species of Hypnum do you make this reported in letter Jan 12/82 Mr Archer writes enquiring the specific name (I had reported it as under consideration) I sketched it to you — please report name as next and

— 90 Bryum — Macoun sketched & sent in same letter I work to name it to Macoun B. capillare ??

— 87 Trichostomum Sectilium Austin Prof Macoun writes that Austin had sent & examined this specimen Do you consider it a Trichostomum and the new species as named by Austin I have sent it sketched and in same letter

I am truly sorry to learn of the serious illness of your wife you say she is a little better and I hope she has recovered by this time

Your old friend Sincerely

Thos. P. James

Cambridge July 2nd 1882

My dear Mr Lesquereux —

I have this noon rec'd yours of June 30th 1882

I thank you for reporting the Tadz Bryum —

— Pogonatum gracile — is a species I do not know I do not find it in Schimper or Muller I infer you mean

— Polytrichum gracile which is given in Sullivant Manual p. 42. as in Boggs Ipswich Mass Oakes — and I find it in my register — Wht Mts (Sargent) Rocky Mts (Hall) Elk Co Pa (Mr Lamb) If you work it I will send you specimens of what I have of Polytrichum gracile and will if you say so sketch. Belleville Ontario (Macoun)

— Pogonatum lamellosum Jd — is a plant published in the Flora of Alaska — I loan you the only pamphlet I have of the report so please return it after you are done with it — you will find it on a note at page 161 as from Eastern Siberia (Rall) — when I was examining the Alaskan plants — this species turned up and I sent it to you with some remarks as a new sp. you examined it so pronounced it suggesting I should name it lamellosum and you described it as given in that pamphlet

When I reported the plants of that expedition — Dr Rothrock requested me to give a list of all the Alaskan Mosses — so I searched all that I had & so I got up — Anophytes determined & compiled by Thos P James.

Pogonatum urnigerum var pusillum I find that I sent it to you July 24 1876 — among others — however I now send a packet of it as named by Mr Sullivant on which I have copied his remarks — If you wish a sketch let me know

In your enumeration for the Manual have you introduced Barbramia stricta & B. subulata?

Cambridge Feby 14th 1882

My dear Mr Sesquerenx

I have looked into the Mosses which you have submitted and think they are

— 381 Phabdowisia denticulata ?? there is no fruit to determine it decidedly the capsule is small and the one under the glass had not a turbinated neck nor had the other (not under the microscope) the leaves are not strongly denticulate but seem more like the figure B&Sch, and broader than fugax It is difficult to determine without a peristome

Mesopodiscla ? or R fugax

— 381 Mnesia longiseta is that species — this also is more easily determined by its peristome & none among the material

— Fontinalis Lescurii var. E. C. Howe by in fruit — I have put into a packet for you & have kept some stems

— 351 "Cyphaea pendula ?" is C. glomerata & not C. pendula —

I have looked thro' Fitzgerald's Florida & Southern Musci sent to me from Paw and among them were the three above

I am about to send his consignment to his brother W. D. Fitzgerald 77 Monument Square Baltimore to take charge of the package where you might send to whatever you have for Chas M Fitzgerald.

15th Yours of the 11th is rec'd I have no specimens of Dichelyma falcatum and do not know that it has fruiting plants it seems it came from Sullivan's Herbarium when I go to the hbr I will look for it —

Austin's Pilotrichum Donnellii was Meteorium megrescens he has published this species.

You say M. Renauld (you have a mistake in the spelling of his name — observe this when you write to him) demands to have specimens of all our Hypnaceae in order to compare — I have picked out of my collection over 40 packets which I send with a list and from which you may select such as you see fit to send to M. Renauld

I would not write our name of the plant on the packet but request him to determine all sent & report the results in his reply by the letter A B.C. &c on the packet – I have sent only about one third of my stock – there are many more which might be sent to Mr R. and if you wish it, I will send you more Mr R. asks for all

I am obliged for the two No. of Rev. Bryol: I have two Nos which came to me some time since and are different – No 6. 1880 & No 2. 1881 and if you haven't these Nos I will send them to you No 6 has a review of Thuidium delicatulum by Philibert

With regard to Braithwaite's Mosses, I refer you to my letter of June 1 1881 when you will find that I have all that he has published to which I offered to loan to you, and which I will send whenever you say. I thought you ought to have them when you come to review the Acrocarpi

Sphagnaceae of Europe & America Braithwaite is a large form 8vo volume of over 90 pp letter press and twenty five colored plates with letter press explanations interveening – the plants are of natural size with magnified parts of each plant

The British Mus – Flora = Fam. I Andraeaceae with illustrations – Part II. Fam II. Buxbaumiaceae & Fam III. Georgiaceae – & IV Fam Polytrichaceae – Fam. V Fissidentaceae – Shall I send these books now?

Yours of 18th is rec – In regard to the Plagiothecium sent in my last I will soon compare with the specimen of P. silesiacum which I have (& now have a sp. (?) which I had long ago discussed with Mr Sullivant

Thank you for reporting the two other plants Leptodon & Desmatodon

I have some 40 to 50 sketches & specimens of Hypnaceae to submit – I have also sketches of all Mittens new species published in Jour Linn Soc vol xvi – when shall I send these?